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THE
ASIATIC SOCIETY OF BOMBAY
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ASIATIC RESEARCHES;

OR,

TRANSACTIONS

OF THE

SOCIETY INSTITUTED IN BENGAL,

For inquiring into the

History and Antiquities;

THE

ARTS, SCIENCES, AND LITERATURE,

OF

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I TAKE this opportunity to correct two passages in former Essays; one in the IVth Vol. of the Asiatic Researches, p. 382: and the second in the first part of my Essay on the Sacred Isles *in* the West, p. 302.

In the latter, I said that the famous PR'A'N-PURÍ went no further than *El-Catif* and *Baharein*, in his way to *Egypt*. But I was mistaken; for he even attempted to go up the *Tigris*, and went even as far as *Moc'há*.

In the former, I asserted that by the *Surya-much'hì-gangá*, PR'A'N-PURÍ meant the *Volga*: but I was equally mistaken; for, from his narrative, he certainly understood the *Shàt-al-Arab*, or the united stream of the *Tigris* and *Euphrates*.

I seldom saw PR'A'N-PURÍ, and he hardly condescended to answer my inquiries: hence the information which he communicated, was vague and desultory. I did not advert then to what Mr. DUNCAN has said on the subject in the Vth Vol. of the Asiatic Researches.

F. WILFORD.

BENARES, *Feb. 20th*, 1808.

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son. These vallies, at the distance of fifty miles from the *Ganges*, are scarcely higher than the surface of its waters; when therefore that river is swollen by the periodical rains, the waters of the vallies are not only prevented from running off, but are so much increased as to be navigable for vessels of very considerable burden.

The soil of the elevated portions of land is in general a stiff clay, in some places black, and somewhat porous, in others white and tenacious. The soil of some of the vallies resembles that of the elevated parts, and that of others is rich and loamy, with a substratum, at a greater or lesser depth, of the same kind of clay which forms the higher grounds. These low lands are for the most part covered with long grass of different sorts, and afford pasture to a great number of buffaloes and to large herds of other cattle.

The northern parts of the district are more level than the southern ones, have a loamy soil, and are well cultivated. Some tracts of clay land are, however, to be found, and it is probable that clay is the substratum of the whole.

The higher lands in the southern parts of the district are principally inhabited by *Musulmans*, and the vallies by *Hindus*. The mode of cultivation and the productions of the elevated parts, differ widely from those of the vallies, so that those who have been accustomed to one of these sorts of land only, can seldom manage the other to advantage.

On the higher clay lands very little besides rice is produced, and, except in very small spots which

are well manured, only one crop in a year. The loamy vallies which do not lie so low as to endanger the inundating of the crop, produce, not only rice, but also a good crop of mustard, or pulse in the cold season. The land which produces two crops in a year is called *Pálli*, and is usually let at a rupee and half per Bighá. That which produces only one crop is called *Khár*, and is usually let at twelve annas per Bighá.

The people of the district of *Dinájpur* are, in general, extremely poor, and their farming utensils are therefore proportionably simple and wretched. A plough drawn by two bullocks, serves to prepare the soil. The plough is composed of four pieces; viz. the Lángal or body of the plough, which is a piece of wood forming two sides of an obtuse-angled triangle, the other side being wanting, with a hole near the obtuse angle to admit a staff of wood or bamboo about six feet long, called the Is. This staff may be called the beam of the plough, and is the part to which the bullocks are yoked, going between them and resting on the yoke by which they are coupled. The ploughshare (Phál) is a flat plate of iron, nearly of a lozenge shape, which is fastened to the under part of the Lángal, to prevent its being worn by the soil. The handle is a piece of wood, or bamboo, about two feet long, fastened to the upper extremity of the Lángal, and furnished, at a small distance from its upper end, with a pin about six inches long, called the Mut, to assist the hand in guiding the plough.

The oxen draw double, or side by side, being coupled together with the Juál, or yoke, which passes over the necks of both of them at once. The lower edge, which lies on the necks of the cattle,

is straight. The upper edge has two elevations, one over the neck of each ox, but is cut down at the middle and at each end, so as to remain about two inches deep. Four bamboo pins are passed through the yoke, one at each end, and two in the middle, which, descending on each side the animal's neck, are connected by a cord under its throat. The beam of the plough rests on the middle of the yoke, and is fastened to it by a cord.

Only one person attends a plough, holding the handle in one hand, and occasionally pulling the tails of the oxen with the other, to guide them, or striking them with a stick to quicken their pace. A pair of oxen may be purchased for six or eight rupees, a plough for five annas, and a yoke for four. An instrument called Maï is drawn over the field after it has been sufficiently ploughed. This may be called the harrow of the *Hindus*. It is made of bamboo, in the form of a ladder, and is four or five feet in length. A cord, fastened to the centre of this rude instrument, is connected with the centre of the yoke, and the driver stands on the harrow, assisting its operation by his weight, and guiding the cattle with his hands. Land pulverized and laid smooth with the Maï retains it moisture, and is fit to receive seed in dry weather, several days longer than it would be if this was neglected. The *Hindus* call the operation, when performed for that purpose, Rasbándhan, or the confining of the moisture.

In dry seasons it is often necessary to water the fields. For this purpose an instrument called a Jánt is used. The Jánt is a trough of light wood, from twelve to sixteen feet long, somewhat curved to admit a greater depth in the middle, the bottom is five or six

inches wide, the height of the sides in the middle part is six or eight inches, gradually decreasing towards the ends, one of which is excavated to a point, to prevent the water from running back and being lost. When this instrument is used, it is slung to three bamboos placed erect and crossing each other in the centre; a long and heavy bamboo, loaded at the further end with a large ball of earth, is then fastened to the end which is to be plunged into the water, and thrown over the three erect bamboos, resting on the top of them. A person standing on a stage, even with, or somewhat below the surface of the water of a pond, river, &c. then plunges the end of the Jánt into the water, with his foot, by which means it is filled. The weight at the end of the long bamboo assists him in raising it out of the water, and throwing its contents into a small reservoir, or pit, from which it is conveyed into the fields, by channels cut for that purpose. Two feet, or two and a half, is the height to which water can be thrown to effect by this machine; when the height is greater, two, three, or more Jánts are used, and in that case the water is thrown into small reservoirs or pits, at a proper height above each other, and sufficiently deep to admit the next Jánt to be plunged deep enough to fill it. Water is by this means sometimes conveyed to the distance of a mile or more on every side of a large tank or reservoir of water.* I have seen fifty or sixty Jánts at one time, in a large receptacle of

* *Qu.* Is not this the watering with the foot mentioned in Scripture, Deut. xi. ver. 10, and may not there be an allusion to the facility with which this water is directed at the will of the husbandman, in Prov. xxi. ver. 1?

water called Mahípál-dighí, about six coss from *Dinájpur*.

To remove earth from one place to another, a yoke of bamboo is furnished with two appendages, called Bhárua, somewhat resembling a coarse sieve, the outside composed of split bamboos wattled or twisted over each other, and the middle part of twine, woven somewhat like the bottom of a sieve. These vessels are about a foot and a half in diameter; when loaded with earth, or any other substance, they are carried with the yoke. The yoke lies across one shoulder, one weight hanging before and the other behind, and is occasionally shifted from one shoulder to the other.

The Kodáli, or digging-hoe is, in this district, set much more towards the earth than in the southern parts of *Bengal*, forming an angle of about six degrees with the handle, whereas about *Calcutta* the angle is not more than thirty degrees. This instrument is used to dig the earth, or to grub up roots, and destroy the coarse grass, when land is to be first broken up. The Kodáli is a very useful instrument, answering the purpose of both spade and hoe.

The last instrument of husbandry which I shall mention is the Kastya or *Indian* sickle. The blade is curved, and edge-toothed like a sickle, but it is much smaller and more rude than the *European* one. The length of the blade is about eight or ten inches, and its greatest width one and a half. It is fixed in a rude handle; and is used to cut corn, grass, or even brushwood upon occasion, being to the *Hindu* a very useful instrument, although a *European* la-

bourer would scarcely pick one of them up if he saw it lie in the road.

Rice is the staple production of the district. Four kinds (including several varieties) are principally cultivated; viz. the Bhaduí, so called from its ripening in the month Bhádar, the Hemat so denominated from its ripening in the cold season, the Buná, and Bohara.

The first of these is chiefly, though not exclusively, cultivated on the lower, and loamy lands; on these soils it is constantly sown by broad cast, in March, April or May, and the quantity sown depends upon the quantity of rain which falls in those months. The season of cultivation is sometimes extended near a month longer than it would otherwise be, by transplanting the rice, while young, into the fields, or the more elevated lands. When it is sown early on the higher lands, a second crop is sometimes produced upon the same spot; but, that which is sown late in the season, ripening proportionably late, so much interferes with the planting of the Hemat rice, that the latter crop is often scarcely worth the gathering.

This rice, when sown on the lower and loamy soils, requires weeding. A large quantity of weeds, particularly *panicum ciliare*, often springs up among it: these weeds, if not extirpated, infallibly ruin the crop. It is also necessary to open the soil, after a heavy shower, by drawing a large drag over it; but no other attention is requisite, till the harvest, when it is cut and housed in the usual way.

The Hemat rice is usually cultivated on the higher and strong lands, a stiff soil being better calculated to

retain the water after the end of the periodical rains. This rice is usually sown at the end of May, or the beginning of June, in small beds, as thick as it can possibly grow. The plants come up in three or four days after the seed is sown, till which time the ground is kept barely moist: after the plants appear it should be kept quite moist, but not flooded. As soon as the rains commence and the earth is well watered, this rice is planted out in beds, (or compartments) each of which is surrounded with a balk, or border, about ten inches high, and a foot wide, to prevent the water from running off.

When a field is first formed, these mounds or borders are thrown up with the Kodáli. The earth is then repeatedly ploughed, till it is completely mixed with the water, and reduced to a soft mud. Five, six, and sometimes eight ploughings are necessary, to destroy the weeds and completely dissolve the clods, after which it is smoothed by drawing the Maï over it, till the surface is so level that the water stands at an equal height in every part. When the field is thus prepared, the young plants are transplanted from the seed-bed by the hand; eight or ten of them being usually planted in one hole. These holes, which are about nine inches asunder, are made by forcing the hand with the young plant into the mud; the plants are left there in an erect position, after which the admission of water settles the roots. When the whole spot is planted, water is admitted from a neighbouring compartment, or from a ditch, a trench or some other reservoir, and if possible constantly kept at the height of at least three (or four) inches. If there be too much water in the field, it is allowed to run off, by cutting a passage for it through the border, and when a sufficient quantity

is run off, the rest is retained, by shutting the passage with a clod of soft earth. This crop requires no weeding, or at most but a very trifling one, the water being sufficient to destroy the noxious weeds. If the season be very dry, the field must be supplied with water from some neighbouring pond or reservoir, as the only means of preserving the crop; attention to this is peculiarly necessary while the plants are young, for if the earth be permitted to grow hard, the plants seldom thrive afterwards; when they have acquired a size sufficient to overshadow the ground, the moisture is retained for a long time, and the crop suffers less, but water is absolutely necessary to the perfection of a crop of rice. In November this crop begins to ripen, and the harvest is usually finished by the end of December. As there is little fear of rain at this season, the crop is housed and stacked, without any loss or difficulty.

The Buná rice is usually sown in April or May, in low lands, where a flood of several feet deep may be expected; if the floods come suddenly while the plants are young, the water rises above them and the crop is lost; but if the plants are strong and the water increases gradually, the rice will grow as fast as the water rises. This crop will answer tolerably well, if the water be four, six, or even eight feet in depth, the stalks sometimes acquiring the length of ten or even fifteen feet; but as they are weak and lie in an oblique position, they do not easily rise above eight feet of water. This crop ripens in November. The upper part of the plants on one man's land being drawn by a gentle stream, or by some other cause, often fall on his neighbour's field and occasion quarrels at the time of reaping.

The Bohara rice is sown in October or November like the Hemat, and about January planted at the bottoms of tanks, or pits, or on very low ground where it can be supplied with water. It is treated in every respect like the Hemat, and ripens in April or May. This is an excellent sort of rice, but the quantity cultivated is necessarily small.

The next article of cultivation is indigo, a plant for which many parts of this district are improper, as it will not grow on the white clay lands called Balka, is sparingly produced on the black or red clays, and as most of the soft and loamy parts lie so low as to be subject to sudden inundations, which infallibly destroy the crop.

The proper season for sowing indigo is in April and May. Some have sown it at the end of September or the beginning of October, and others in any month from October to March. That sown in September, or October, or even in November, will frequently produce a crop, if the land be not low and damp. It is better to sow on low damp soils, in December, January and February, when the season will soon become warm enough to obviate the danger arising from the soil. Some have sown a winter crop with this indigo, which as it affords the young plants a shelter in the cold season, may be esteemed a good method. Mustard, ripening very early, is the most improper for this purpose, because it leaves the indigo exposed at the very season in which it requires shelter. The young plants, at this season of the year, are often greatly injured by the treading of cattle; and the crop is seldom so good as that which is sown in the proper season. If the season be favourable, and the whole crop be sown in March,

April or May, (for which repeated rain is absolutely necessary,) and be weeded before the periodical rains set in, an abundant crop may be expected. Indigo sown in June seldom repays the labour of the husbandman, the rains, then setting in, usually injure the plant while young, or produce weeds in such abundance, that it is choked by them, and generally perishes.

The present method of cultivating indigo is subject to many inconveniences, and therefore liable to many objections; but as the whole business is conducted by giving advances of money to the Ryots, previously to their sowing the seed, and by receiving the produce at a certain number of bundles of a given measure for a rupee, and as many of them scarcely ever intend to fulfil their engagements, the application of a remedy would be difficult, especially as the devising of it must depend upon experiments, to the making of which the poverty and prejudices of the cultivators would prove an almost invincible obstacle.

Corchorus *olitorius*, *Corchorus capsularis*, and *Crotalaria juncea* are sown in April, May, or June. The fibres of these plants are much used for cordage, and for making sackcloth, and are very valuable for these purposes. The *Æschynomene cannabina*, is sometimes, though but seldom, sown in this district, but is more abundantly cultivated in the southern parts of *Bengal*. The fibre of this plant is less valuable than that of the *Corchorus*. There are two varieties of the *Crotalaria juncea;* one, sown at this season, often grows ten or twelve feet high; the other variety is sown in October, and rises to the height of four or five feet.

After the earth is properly ploughed, cleansed, and pulverized, the seeds of these plants are sown very thickly. The natives say that they should be sown so close together that a serpent cannot creep between them. This prevents the plants from throwing out blanches, which would be highly injurious to the fibre.

As the growth of these plants is exremely rapid, the crops suffer but little from weeds; if the weeds however should be numerous, they must be extirpated by the hand.

When the Sana* has done flowering, and the seed vessels have nearly attained their full size, sometime before the seeds ripen, it is cut down, and tied in small bundles, each containing ten or a dozen plants. The bundles are then set upright in water (about a foot or a foot and a half of the lower part of the stalk being immersed) and continue in that situation one day; by this means the upper, and comparatively tender, part of the stalk is somewhat dried. This occasions a greater similarity in the quality of the fibre taken from different parts of the same plant.

After the Sana has thus stood erect for one day, it is steeped in a pond, or some other receptacle of water, to promote the separation of the fibre from the stalk. This process is as follows: a number of the small bundles abovementioned are laid one upon another, so as to form a heap five or six feet wide, on each side of which three or four stakes are previously set, to prevent its falling down. A quantity of cow-dung is then spread over the heap, about two

* Crotalaria juncea.

or three inches in thickness; upon this a layer of straw of about a foot and a half, and over the whole a quantity of earth sufficient to sink the heap till the upper part is five or six inches below the surface of the water. In two days and a half, or three days at farthest, the putrid fermentation is carried to a sufficient extent.

The Sana is then taken out, and the fibre stripped from the stalk in the following manner. A man standing up to his knees in the water, takes a few of the stalks, and, having broken them about a foot from the lower end, holds them with the large ends from him, and strikes them on the surface of the water, till the broken pieces are separated and fall off. Then turning them, he takes hold of the fibres which are freed from the broken pieces, and beats the small ends, in the same manner, on the water, till the fibre is entirely separated from the stalks; a few strokes are sufficient, and by a few more it is cleansed from any mucus, or fragments of stalks which may adhere to it. It is then dried and packed up for the market.

The chief thing to be attended to in this process, is the proper regulation of the putrid fermentation; if this be not carried to a sufficient extent, the fibre will not separate, and if carried too far, the quality is injured. The most experienced natives account two days and a half a proper medium. The fermentation is doubtless quickened or retarded by the state of the weather, but the difference occasioned thereby is so small, that the *Bengal* farmers entirely disregard it.

The *Crotalaria*, cultivated in the neighbourood of

Calcutta, and probably that cultivated in all the southern parts of *Bengal*, is accounted much inferior to that cultivated in the northern parts of the country. The natives attribute this to the difference of soil. This may have some effect, but it is probable that the variety cultivated in the south, is inferior to that cultivated in the north; as, even there, the large variety is preferred to the smaller one.

Phaseolus Mungo is usually sown in small fields about the beginning of June, and generally produces a good crop; it will thrive only on high and good land. *Phaseolus radiatus* is sown in July and August, on land where another crop has failed, and, not unfrequently, on old sward, or on land which could not be regularly cultivated. The seed is scattered over the land, often without any ploughing at all, and at most the plough is only drawn over the surface so as to make a few slight scratches. This crop ripens in October. It is obvious that much produce is not to be expected from such a mode of culture. The crops are indeed light, but are often sufficient to pay the rent of the land. A more rational method of cultivation would doubtless be far more productive.

The low and loamy soils, after having produced a crop of early rice, are usually sown with the seeds of some other plant, in October or November. The mode of culture for all the cold season crops is nearly alike. The natives seldom begin to sow till about the full moon in October, supposing that the soil possesses a pernicious quality, which burns up the young plants, till the cold season is well set in. Indeed, before that time, the quantity of moisture in the soil is too great, and the heat of the season un-

friendly to these productions; so that though the plants will come up, they are yellow and sickly, and either soon perish, or continue small, stunted, and unproductive.

Mustard seed is sown in great quantities at this season. Three kinds are usually cultivated; viz. Surshapa,* *vulg.* Sursha, Raya,† and Sheta Sursha.‡ The first is the most esteemed, though the other two kinds are as productive, and perhaps more so. The *Sinapis dichotoma* rises about two or three feet in height, flowers in the latter end of November, or the beginning of December, and is usually ripe in January. *S. ramosa* grows sometimes five or six feet high. It flowers in the end of December, or in January, and ripens in February. *S. glauca* grows two or three feet high, and ripens in February. This kind, having a strong and disagreeable smell, is less valued than the other sorts. When the crops of mustard are ripe, the plants are carefully pulled up by the hand, and carried to a place in the field, smoothed and prepared for the purpose, where it is soon after thrashed and winnowed.

Flax,§ though abundantly cultivated in the central parts of *Bengal*, for its use in making oil, is but little cultivated in this district. The natives know nothing of the use of its fibre to make thread. The oil-men usually mix the linseed with a quantity of mustard seed, to promote the expression of the oil. This so injures its quality, that *Indian* linseed oil is unfit for painting, or the other useful purposes to which it is applied in *Europe*.

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* Sinapis dichotoma. † S. ramosa. ‡ S. glauca.
§ Linum usitatissimum.

Many parts of this district are very proper for the cultivation of wheat and barley, notwithstanding which, very little of either is sown. The kind of wheat found in these parts is bad, the flour produced therefrom is of a very dark colour, and consequently finds no market among *Europeans*. The native merchants on this account make no advances for it, and this want of a market is the reason alleged why it is not cultivated to a greater extent. For the purpose of making a trial I sowed *Patna* wheat, on a large quantity of land, in the year 1798; the flour produced from which was of a very good quality.

Several kinds of pulse are sown at the commencement of the cold season, the principal of which are Kesari,* Mashuri,† and But.‡ The seeds of the first of these kinds are sometimes scattered among the stubble of the Buna rice, and produce a good crop without further trouble, but the most usual way is to sow it on land previously well ploughed and cleansed, in the same manner as for the other cold season crops.

Tobacco is cultivated to a considerable extent on low and loamy land. The seeds are sown on a small plat or seed bed, soon after the conclusion of the rains, where they are shaded, and watered, if necessary, till they are large enough to be transplanted into the field. The land for tobacco must be well ploughed, and manured, after which the young plants are transplanted in rows, much in the manner that cabbages are planted in *England*, and at the same distance. The young plants require continual attention, the ground between them must be

* Lathyrus sativa. † Ervum lens. ‡ Cicer arietinum.

repeatedly loosened, and the earth drawn to the roots, till they have acquired a sufficient growth: they are then cut and dried for use.

The egg plant,* and several species of capsicum, are planted at the same time, and in exactly the same manner, as tobacco. The fruit of the egg plant is much used all over *India*, as an article of food, as is the capsicum to give a pungent taste to several *Indian* dishes. I have not observed that these plants are planted in this district at any time except the commencement of the cold season, and there is reason to suppose that they would not succeed if they were; though in the southern parts of *Bengal*, they prosper very well when planted at the commencement of the rainy season. Several other plants are cultivated as articles of food, some to a greater and others to a less extent. The cucurbitaceous plants are often sown in the fields, and the advantage of cultivating them is considerable. The sorts most cultivated are cucumbers of two sorts, the one sown in April and yielding fruit through the rainy season, and the other sown from November to February, and yielding fruit till the rainy season sets in. Karaila,† Terbúz,‡ Dúdh Kushí,‖ Jhinga,§ Taroï,¶ Kankrol,** Láú,†† Kaddú‡‡ and the Konhra, or Pumpkin.§§ The three last of these are suffered to run over the houses, and sometimes on a bamboo stage, and produce fruit sufficient for the expenditure of the cultivator, besides furnishing a large quantity for the markets.

* Solanum Melongena.
† Momordica carantia.
‡ Cucurbita citrullus.
‖ Trichosanthes anguina.
§ Cucumis pentangulus.
¶ Cucumis acutangulus.
** Momordica mixta.
†† Cucurbita lagenaria.
‡‡ Cucurbita alba.
§§ Cucurbita pepo.

The sweet potatoe* is planted at different seasons in different parts of *Bengal*, but in this district it is planted at the beginning of October. The ground is previously ploughed to as great a depth as possible, and then cuttings, taken from a small spot reserved for that purpose, are planted; these cuttings soon take root, and afterwards require no further care, till the roots are fit to be taken up, which begins to be the case at the end of December, and continues till May, during which time the produce is dug up and carried to market as it suits the convenience of the cultivator. Another variety, of a white colour, which has very little sweetness, and a small species of yam,† the root of which is about the size of a goose's egg, are cultivated in the more northern parts of the district. The cuttings of the plants of the *convolvulus*, and the small roots of the yam, are planted in April or May, and the produce brought to market in October or November.

Three varieties of the *Arum esculentum*, (Cachú of the *Hindús*,) are usually planted in March or April. The cultivation of these roots, occupies a considerable portion of the soil, and the produce is as important as potatoes to the people of *England*. The offsets from the root are planted in rows, about a foot and a half or two feet asunder, and as the plant increases in size, are earthed up as potatoes are in *Europe*. The periodical rains being ended, the leaves die away; after which, from November to March, the roots are taken up, and carried to market, as suits the convenience of the cultivator. These roots abound with a farinaceous substance, or rather with

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* Convolvulus batatus. † Dioscorea.

a viscous, starchy substance, and are esteemed very nutritive. The Mán Cachú,* and the Ol,† are cultivated in small spots. The root of the first of these is often two or three feet long, and nine inches or a foot in diameter. It is necessary to lay this root to dry for two months or more, otherwise it is too acrid to be eaten; after this it is very wholesome, though not very palatable. As all the sorts of Cachú will keep for almost any length of time, it might be worth attention as an article of provision for sea voyages.

In shady situations, where the soil is rich and loamy, ginger and turmeric flourish. The offsets are planted at the same time with, and the whole culture is exactly the same as that observed for the arum. The leaves die off, like those of arum, soon after the rains, and the roots are fit to be taken up in January. The turmeric is very deficient in colour, and the ginger less pungent, if taken up too soon. The farmers therefore let it remain in the ground till the leaves are entirely dried up. Ginger is usually sold green, and only a small proportion dried for foreign market or home consumption. After the roots of the turmeric have been well cleansed and picked, they are boiled over a fire made with the decayed leaves of the plant, (the natives supposing such a fire to have a peculiar kind of virtue,) after which they are well dried in the sun, and reduced to powder by the Pedal, or by the wooden mortar and pestle. In this state they are usually carried to market. The roots are sold likewise before they are pulverized.

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* A. Campanulatum. † Arum macrorhizon.

On moderately high spots, where the soil is good, the sugar-cane is planted in February and March. The spot designed for sugar-canes is usually surrounded with a ditch, the earth dug from which is heaped up round the field, in the manner of a wall, and serves to defend it from cattle. After the spot has been well ploughed, or dug up with the Kodáli, cuttings of ripe canes, consisting of about three joints, are planted somewhat slanting, in rows, about two feet, or at most three feet distance, and about a foot asunder in the rows. The fields must be often watered and cleansed from weeds. When the canes are about four feet high, they are tied in bunches, about three or four stalks forming a bunch: this permits the air to circulate among them, and facilitates their ripening. The canes, when ripe, are cut, and either carried to the mill or to the market.

The cultivation of the plantain is a profitable branch of husbandry, requiring but little labour, and making a certain return. Spots near to the habitation are chosen for this purpose, to guard against the depredations of thieves. The young plants or suckers are taken from old plantations, and planted at about six or eight feet distance each way. They may be planted at any time of the year, but May or October is usually chosen. The root is all cut off previously to planting, except a small part with a few fibres. The ground is ploughed, either before or after planting, as it suits the convenience of the farmer; and a crop of some other plant is advantageously cultivated on it, the first year. In the second year the trees produce fruit, and continue to do so for some years; each clump will produce about two bunches in a year, It is necessary to plant a new field at the end of three or four years; because, when

the clumps become large, the fruit is small, and the bunches contain a smaller number of fruit.

The *Cytisus Cajan* is frequently sowed round fields of sugar-canes, egg-plant, and other things: this, while it makes a slight and well looking fence, is also a source of profit to the cultivator.

At present the poverty, prejudices, and indolence of the natives strongly operate against improvements in agriculture. Could an adequate remedy be found for these evils, many other things might be cultivated with great advantage. Hemp would flourish in many spots; cotton, scarcely cultivated at all in the district, might be cultivated to a large extent; if proper methods were taken to introduce the best kinds, the culture of wheat and barley might occupy many thousands of Bighás, which now lie in an uncultivated state.* The culture of some species of *Hibiscus*† would be profitable, and furnish one of the most durable fibres for cordage, and, perhaps for coarse cloths.

The cultivation of timber has hitherto, I believe, been wholly neglected: several sorts might be planted all over this district, and indeed all over *Bengal*, and would soon furnish a very large share of the timber used in the country. The Sisú,‡ the Andaman red-wood,‖ the Jaca-tree,§ the Teak,¶ the Mahoga-

* I have not observed that any of the smaller grains, such as Paspalum, Holcus, &c. are cultivated in this district: they would undoubtedly prosper in many situations.

† Particularly H. cannabinus, H. surattensis, and H. strictus.

‡ Dalbergia Sissoo. ‖ Pterocarpus Dalbergius.

§ Artocarpus integrifolius. ¶ Tectona grandis.

ny,* the Sattin-wood,† the Chakrási,‡ the Tuna,‖ and the Sirisha,§ should be principally chosen. The planting of these trees single, at the distance of a furlong from each other, would do no injury to the crops of corn, but would, by cooling the atmosphere, rather be advantageous. In many places, spots now unproductive, would be improved by clumps or small plantations of timber, under which ginger and and turmeric might be cultivated to great advantage.

In some situations Sál,¶ Pitsál,** Jaral,†† and some other sorts of less note would prosper.

Indeed the improvements that might be made in this country by the planting of timber, can scarcely be calculated. Teak,‡‡ that most useful wood, is at present brought from the *Burman* dominions, though it would grow in any part of *Bengal*, and perhaps in any part of *Hindostan*. It appears, from the annals of the National Museum of Natural History, that the *French* naturalists have begun to turn their attention to the culture of this valuable tree, as an object of national utility. This will be found impracticable in *France*, but may perhaps be attempted somewhere else. To *England*, the first commercial country in the world, its importance must be obvious, and the further encouragement ‖‖ of the culture of it in this country, will eventually furnish a supply of excellent timber for ship building and various other

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* Swietenia Mahogani.
† Swietenia chloroxylon.
‡ Swietenia Chukrassa.
‖ Cedrela túna.
§ Mimosa Seereesa.
¶ Shorea robusta.
** The genus of tree is not yet determined.
†† Lagerstroemia flos reginæ.
‡‡ Tectona grandis.
‖‖ The cultivation of Teak has been encouraged by Government.

important purposes, and obviate all apprehensions of the failure of the market where it is purchased, or of the destruction of the forests which have hitherto supplied it.

Most of the Palms, though useless as timber, deserve the attention of the agriculturist. The Sago-tree* would grow in all the high parts, and the Date-tree,† planted close, would greatly improve many spots now wholly unproductive. The juice of this tree is manufactured into sugar, in some parts of *Bengal*, and is highly valuable for that and other purposes. It is common to let a tree of this kind for two annas a year. Two hundred of these trees might be planted on a Bighá, which lets for a rupee and a half; this would be productive of a large income, after the first eight or ten years.

Few attempts have yet been made to improve orchards. The Mango, and other fruit trees, are often planted so close as to choke each other, and but little regard is paid by the planter to the quality of the fruit. Scarcely any attempt has been made to naturalize foreign fruits; even the Orange tree is almost a stranger to several parts of *Bengal*, though some late experiments prove that it might be introduced with success. The laudable attempts made by several *Europeans* excepted, the improving of fruits, by grafting, or by raising improved varieties from seed, has scarcely been attempted. In short, the fruits of *Hindostan* are not far removed from a state of nature.

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* Saguerus Rumphii.

† Phœnix Silvestris.

The remedy for these evils is obvious to every one, and the application of it would fully reward any person who would engage heartily in it.

In this district several obstacles to agriculture present themselves to the farmer. Large numbers of wild buffaloes and hogs infest the fields, and make it necessary for the farmer to watch his crop, from the time it appears above ground, till the harvest is gathered in: as this watching is impracticable beyond a certain extent, is attended with much danger, and often ineffectual, the cultivation carried on by an individual must be proportionably limited.

The inundations which are occasioned by the sudden overflowing of the rivers, frequently destroy the crop through a large extent of country, or so much injure it, that by this alone, the laborious husbandman is often so reduced in his circumstances, as to be unable, or so discouraged as to be afraid, to carry on the cultivation of the soil with any degree of spirit. The beasts might be destroyed, or their ravages prevented, in various ways; but it is difficult to provide sufficiently againt the effects of inundations.

Perhaps the encouragement of cold season crops would be the best remedy for both: for the long grass being destroyed by the cultivation of the low lands, the wild animals would find no shelter, and indeed no sustenance, when the crop was off, which might occasion them to desert the country, and the cold season crop, though often less valuable than a crop of rice might prove a remuneration for the labours of the cultivator, and by some improvements might be brought to such a state as to become a source of considerable profit.

Though these remarks relate chiefly to the district of *Dinajpur*, yet it is obvious that many of them will equally apply to the other parts of *Bengal*.

The improvement of live stock, and introduction of dairies, the fencing and manuring of land, the introduction of wheel carriages, and a number of improvements of a similar kind, have not been hinted at, because the present state of society seems to render them to a great degree impracticable. Yet the rapid progress of agricultural improvements in *England* encourages the hope, that a gradual improvement may also be effected in *Hindostan*.

REFERENCES TO THE FIGURES.

PLATE I.

Fig. 1.—*The Plough.*

a. The Lángala, or body of the plough.

b. The Is', or beam.

c. The Phála, or share.

d. The share, fixed on the plough.

e. The handle.

f. The Moot, or peg, to assist in holding the plough.

Fig. 2.—*The Jooal, Beng, or Yoke.* (*Sans.* Yuga.)

a. The under edge, which rests on the neck of the bullock.

b. b. The elevations on the upper part.

c. c. c. c. The pins, by which it is fastened to the neck of the o.c.

Fig. 3.—*The Lat, or narrow.* (*Sans. Los'tbhedhaná.*)

Fig. 4.—*The Jánt, slung for raising water.*

a. The Jánt.

b. The end, excavated to a point.

c. c. c. The bamboo to which it is slung.

d. The bamboo, loaded at one end, to assist in raising the end *b* out of the water.

e. A man working it.

f. The reservoir, or channel, into which the water is thrown.

Fig. 5.—*The Bharuá.*

a. Bank, or yoke.

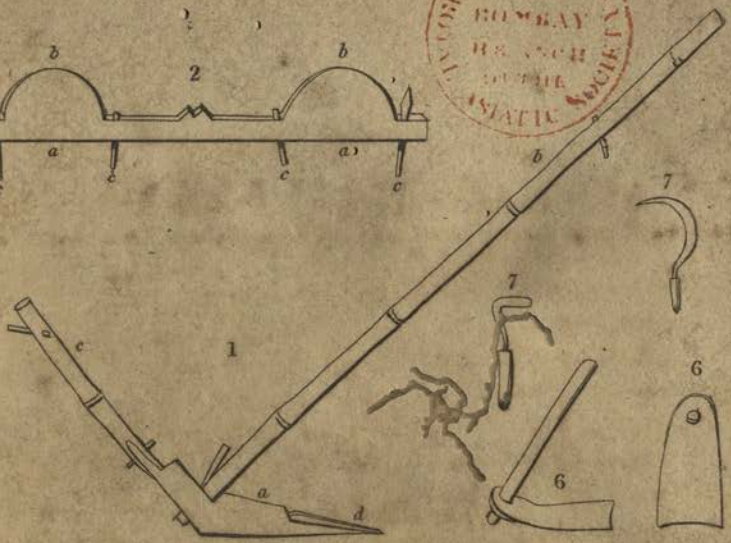
b. b. The Shikya, or string by which the weight is suspended.

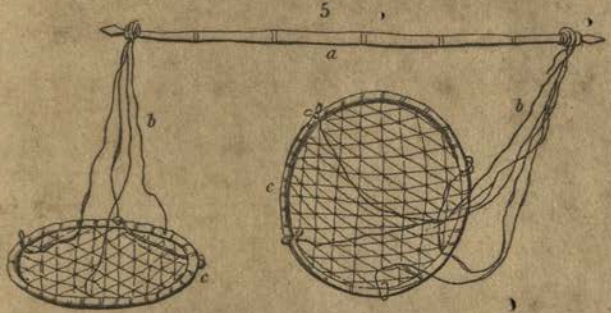
c. c. The receptacles, in which the earth or other substance is carried.

Fig. 6.—*The Kodáli, or digging-hoe.*

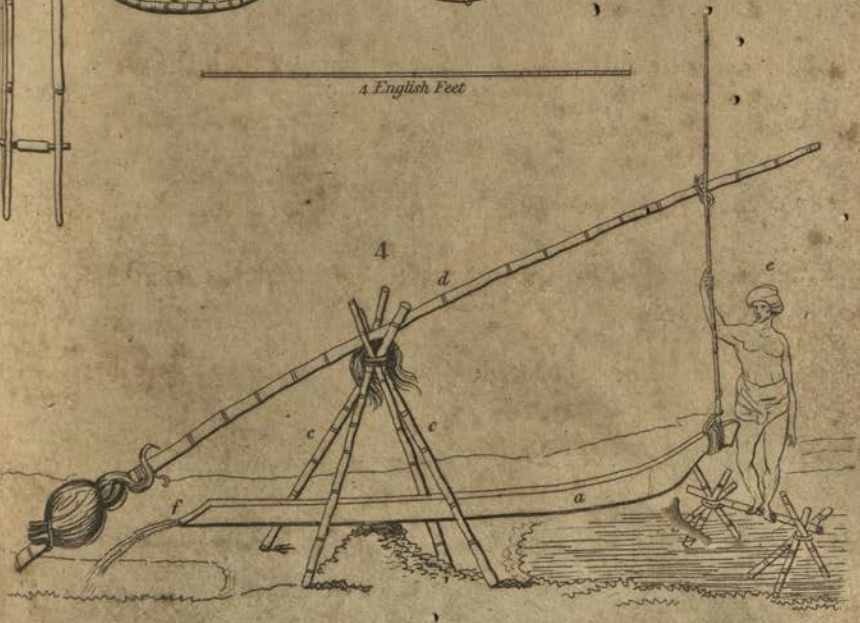
Fig. 7.—*The Kastya, or sickle.*

BOMBAY
ASIATIC SOCIETY





4 English Feet



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II.

An ESSAY *on the* SACRED ISLES *in the West, with other Essays connected with that Work.*

BY CAPTAIN F. WILFORD.

ESSAY V.

Origin and Decline of the CHRISTIAN RELIGION *in* INDIA.

I. IT appears, that long before CHRIST, a renovation of the universe was expected all over the world, with a Saviour, a King of Peace and Justice. This expectation is frequently mentioned in the Purán'as: the Earth is often complaining that she is ready to sink back into *Pátála* under the accumulated load of the iniquities of mankind: the *Gods* also complain of the oppression of the *Giants*. VISHNU comforts the Earth, his consort, and the Gods, assuring them, that a Saviour would come, to redress their grievances: and put an end to the tyranny of the *Daityas*, or *Demons*. That, for this purpose, he would be incarnated in the house of a shepherd, and brought up among shepherds. The followers of BUDD'HA unanimously declare, that his incarnation in the womb of a virgin, was foretold several thousand years, though some say one thousand only, before it came to pass.*

A short time before the birth of CHRIST, not only the *Jews*, but the *Romans*, on the authority of the

* See also As. Res. vol. vi. p. 267.

Sibylline books, and the decision of the sacred college of the *Etrurian* augurs, were all of opinion, that this momentous event was at hand. This was equally the case in the east, and a miraculous star directed the holy men, who were living in anxious expectation, where to find this heavenly child. At that time the Emperor of *India*, uneasy at these prophecies, which, he conceived, portended his ruin and the loss of his empire, sent emissaries to inquire whether such a child was really born, in order to destroy him: and this happened exactly the 3101st year of the *Cali-yuga*, which was the first year of the *Christian Era*. This traditionary account is known all over *India;* and is equally current among the learned and the ignorant. But the *Hindus* fancy, that these old prophecies were fulfilled in the person of CRĬSHNA. What induced the *Bráhmens* to adopt this idea, is not so obvious. It is possible, however, that they saw plainly, that if they admitted these prophecies to have been fulfilled about the time of CHRIST, some material alteration must, of course, have taken place in their religion. The *Magi* of scripture, who came from the east, where equally expecting this renovation; and the star served only to guide their steps. This expectation, of a renovation of the world, prevailed also among the *Gothic* tribes in the north: but after waiting patiently for some time, certain enterprising men set themselves up, for the promised MANU, or new ADAM; and were acknowledged as such. According to their traditionary accounts, they were nettled, and puzzled with some strange reports from the east, about the appearance of some *Æsir*, *Asæ*, Gods, or god-like men; and GYLFE is supposed to have been sent to inquire into the truth of these reports. His embassy is the ground work of the *Edda*, which concludes with these remarkable words. "The new

Asæ then took to themselves the names of the ancient ones: and gave themselves to be the real *Asæ*, or Gods." ODIN was one of them, and advancing towards the north, GYLFE surrendered his kingdom to him. In consequence of these notions of a change in this sublunary world, a new system of religion in *Britain*, was set up in opposition to the old one, according to the ingenious Mr. CLELAND: and this, he thinks, must have happened some time B. C. but, I think it happened later; for HENGIST and HORSA were in the tenth degree of lineal descent from this new ODIN; who, of course, was contemporary with TRENMOR, who was deified by FIN-GAL his great grandson, who appointed him an *Elysium*, from which the sons of the feeble were excluded, and priests also, I believe. That FINGAL and his followers held in contempt the old religion, is obvious from the ancient *Galic Poems*. Probably the defeat of the druids in *Anglesea*, for so we may call it in spite of their spells, and holy texts *churned* from their sacred *Vedas*, accelerated their ruin, and that of their religion: this, with some obscure prophecies, foretelling that a total change in civil and religious matters, was going to take place, induced many clever and enterprising persons to avail themselves of all these circumstances; and to give out, either, that they were this expected divine being, or to deify their own ancestors. FINGAL succeeded most completely: for, till very lately, many of the *Irish*, among the poorer class, believed, that the souls of the departed went into the *Elysium* of TRENMOR and MAC COWAL, according to the industrious inquirer J. GOOD, who lived above 200 years ago: and, if the Christian religion had not prevailed soon after, TRENMOR would have been considered, in time, as the supreme being. In the same manner, the

Emperor AUGUSTUS was of course consecrated a God, after his death; and, both before and after, temples were erected in his honour, and sacrifices offered to him. The courtiers of ANTONY, acting upon the same principles, declared, that he was OSIRIS *redivivus, born again*, and that CLEOPATRA was ISIS. VIRGIL adds, that the renovation of the world, *so long foretold*, was going to take place, and begin with the golden age as usual: then the *Argonauts*, in due time, with the *Argo*, would reappear: and that there would be another TYPHIS, a *Trojan* war again, in which ACHILLES would signalize himself.

The *Hindu* traditions, concerning this wonderful child, are collected in a treatise called the *Vicramacharitra*, or history of VICRAMA'DITYA. This I have not been able to procure, though many learned Pandits have repeated to me, by heart, whole pages from them. Yet I was unwilling to make use of these traditions, till I found them in the large extracts made by the ingenious and indefatigable Major C. MACKENZIE of the *Madras* establishment, and by him communicated to the Asiatick Society.

When I mentioned the *Sibylline* verses, I by no means intended the spurious ones, which are deservedly rejected by the learned: but the genuine ones, such as they existed in the time of VIRGIL; whose testimony is unquestionable, and incontrovertible. Whether these prophecies were really written by inspired women, is not now the question: they were certainly current all over the west, and this is enough for my purpose. There were several of them, and the most ancient were from the east. There was a *Persian*, a *Chaldean*, an *Egyptian*, and also, according to PAUSANIAS and ELIAN, a *Iudaia*, or *Jewish* Sibyl from

Palestine. Such women probably never existed: but the prophetical verses, that were attributed to them, were extracted from the sacred records of their respective countries. The fourth eclogue of VIRGIL is entirely on the subject of this long expected renovation of the world.

The last *great age*, foretold by sacred rhymes,

In the original it is, foretold by the CUMŒAN SIBYL.

Renews its finished course; *Saturnian* times
Roll round again, and *mighty years*, begun
From their first orb, in radiant circles run.
The base degenerate iron offspring, *(or the Cali-yuga)* ends,
A golden progeny *(of the Crita, or golden age)* from heaven descends:
O chaste LUCINA, speed the mother's pains:
And haste the glorious birth; thy own APOLLO reigns!
The lovely boy, with his auspicious face!
The son shall lead the life of gods, and be
By gods and heroes seen, and gods and heroes see.
Another TYPHIS shall new seas explore,
Another *Argo* land the chiefs upon the *Iberian* shore:
Another HELEN other wars create,
And great ACHILLES urge the *Trojan* fate.
O of celestial seed! O foster son of Jove!
See, labouring nature calls thee to sustain
The nodding frame of heaven, and earth, and main:
See to their base restored, earth, seas and air.

These are the very words of VISHNU to the *Earth*, when complaining to him and begging for redress.

It is obvious, that VIRGIL considered the momentous events of the *Trojan* war, the expedition of JASON in the *Argo*, and the rape of HELEN or LACSHMI, as the necessary concomitants of a renovation of the world. The *Cali-yuga*, according to VIRGIL, ended a little before CHRIST, of whom he had no

knowledge: and according to HESIOD, and the *Jainas* in *India*, the *Cali-yuga* began about 1000 years B. C. and lasted, of course, the same number of years, which were natural ones in the west, but are considered as divine years in *India*.

About 60 years before the birth of CHRIST, the capital of the *Roman Empire* was alarmed by prodigies, and also by ancient prophecies, announcing, that an emanation of the deity was to be born about that time, and that a renovation of the world was to take place. In the year of Rome 690 and 63 B. C. the Senate, having been convened on the ninth day before the calends of October, or the 23d of September, in order to prepare against imminent dangers threatening the Empire, the whole city was alarmed by new causes of anxiety. P. NIGID. FIGULUS, the intimate friend of CICERO, who was then consul, having heard C. OCTAVIUS apologising to the Senate for his coming so late, on account of his wife having been just brought to bed, exclaimed, you have then begot a lord and master unto us. This FIGULUS was in such estimation at *Rome*, that he was reckoned among the most learned men: and such was his superior knowledge of the mathematics, and other sciences grounded upon them, that he was believed to deal in the occult sciences. That exclamation of his threw so much more terror into the minds of the Conscript Fathers, as for a few months before, it was constantly reported, that nature was bringing forth a king unto the world, and it was said, that the same was asserted in the *Sibylline* verses. Besides, oracles to that purport were constantly brought in from the most distant parts of the world. On this account, and more particularly on account of a prodigy that had just happened at *Rome*, the Senate terrified, issued a

decree, that no father, during the course of that year, should presume to lift up from the ground, or bring up a new-born male child. However, those among the Conscript Fathers, whose wives were with child, had the decree suppressed: and these prophecies and prodigies were afterwards applied to AUGUSTUS, who was born during the consulate of M. TULLIUS CICERO*, sixty-three years before CHRIST; but fifty-six according to several writers in the east, such as the author of the *Lebtarikh* and others. Hence it is, that NICOLO DE CONTI, who was in *Bengal*, and other parts of *India* in the fifteenth century, insists that VICRAMA'DITYA was the same with AUGUSTUS, and that his period was reckoned from the birth of that Emperor, fifty-six years B. C.

In the year 119 B. C. in the time of MARIUS, such direful prodigies appeared, that the sacred college of *Heteuria*, on being consulted, declared that the eighth revolution of the world was at an end: and that another, either for the better, or the worse, was going to take place†: and JUVENAL, who lived in the first century, declares that he lived in this ninth revolution, which was then going on‡: for the *Etruscans* reckoned twelve of these revolutions, each of one thousand years, according to some: but according to others, these twelve revolutions constituted what they called the great year.

It may be asked, what prophecies are to be found in the *Purán'as* concerning this Saviour and avenger. I observed before, that the *Hindus* would have it,

* See Supplement to TIT. LIV. cii. Decad. c. 39.
† PLUTARCH in SYLLAM, p. 456.
‡ JUVENAL, Satyr. xiii. v. 28.

that these prophecies were fulfilled long before, in the person of CRĬSHNA. In this, they were wiser than the *Jews*, who, by insisting that the MESSIAH is not yet come, have plunged themselves into inextricable difficulties, and have been forced, at last, to give up any further inquiry into the time of his appearance. In this manner, many of the *Samaritans*, in order to elude the prophecies concerning CHRIST, insist that they were fulfilled in the person of JOSHUA, whose name is the same with Jesus, and who, according to the *Hebrew* text, was contemporary with CRĬSHNA; and they have also a book of the wars of JOSHUA with SCAUBEC*, which may be called their MAHA'-BHA'RAT.

When I said, that the *Hindus* conceived, that the prophecies concerning a Saviour of the world, were fulfilled in the person of CRĬSHNA, I do by no means wish to convey an idea, that he was CHRIST, from whom he is as distinct a character, and person, as JOSHUA; and whose name, with the general outline of his history, existed long before CHRIST. "Yet the prolix accounts of his life," to use the words of Sir W. JONES, "are filled with narratives of a most extraordinary kind, and most strangely variegated. This incarnate deity of *Sanscrit* romance, was not only cradled, but educated among shepherds; a tyrant at the time of his birth, ordered all the male infants to be slain. He performed amazing, but ridiculous miracles, and saved multitudes, partly by his miraculous powers, and partly by his arms: and raised the dead, by descending for that purpose into the infernal regions. He was the meekest and best tempered of beings, washed the feet of the *Brâhmens*,

* Reland de Samarit. p. 15, &c.

and preached, indeed sublimely, but always in their favour. He was pure and chaste in reality, but exhibited every appearance of libertinism; lastly, he was benevolent and tender, and yet fomented and conducted a terrible war." The *Yadus*, his own tribe, and nation, were doomed to destruction for their sins, like the descendants of YAHUDA or YUDA, which is the true pronunciation of JUDA. They all fell, in general, by mutual wounds, a few excepted, who lead through *Jambu-dwípa* a miserable and wretched life. There are some to be found in *Gurjarat'*: but they are represented to me as poor and wretched. "This motley story must induce an opinion,* that the spurious gospels, which abounded in the first ages of christianity, had been brought to *India*, and the wildest parts of them ingrafted upon the old fable of CRĬSHNA." Several learned missionaries are also of that opinion, though they carry the comparison too far. The real name of CRĬSHNA was CÂNEYA, and he was sur-named CRĬSHNA, or the black, on account of his complexion.

The *Hindus*, having once fixed the accomplishment of these prophecies to a period greatly anterior to the *Christian Era*, every thing in their books was either framed, or new modelled accordingly; and particularly in the *Purán'as*, every one of which is greatly posterior to our era: though many legends, and the materials in general, certainly existed before, in some other shape. Yet, as inconsistency and contradiction are the concomitants of falshood and deceit, it may be supposed, that some circumstances and particulars, tending to remove the veil they have attempted to throw over these events, may have

* As. Res. vol. 1. p. 2, 3.

escaped them. This is very probable; but as I never had the most distant idea of ever investigating this subject, till very lately, I may probably have overlooked many passages of this nature; and I recollect now only two material ones, which I mentioned before. These prophecies, in the *Puránas*, concerning this Saviour, declare, that he was to appear in the latter end of the third, and in the beginning of the fourth age: which can, by no means, be reconciled to the *Christian Era*, according to their mode of reckoning. The two passages, alluded to, are to be found in the *Padma* and *Gan'es'a-puránas*. In the first, BALI, an antediluvian, and in the fifth generation from the creation, is introduced requesting the God of Gods, or VISHNU, to allow him to die by his hand, that he might go into his paradise in the *White Island*. VISHNU told him, it was a favor not easily obtained; that he would, however, grant his request: but, says VISHNU, you cannot come into my paradise now; but you must wait, till I become incarnate in the shape of a boar, in order to make the world undergo a total renovation, to establish, and secure it upon a most firm and permanent footing: and you must wait a whole *Yuga*, till this takes place, and then you will accompany me into my paradise. A whole *Yuga*, or *Mahá-yuga*, consists of 4,320,000 divine, or more probably 4,320 natural years.* These, reckoned from the fifth antediluvian generation, will fall in, very nearly, with the beginning of the *Christian Era*, according to the *Septuagint*, and JOSEPHUS's computation. As to the

* These are a component part of the great year, or period of 12,000 years, used both in the east, and in the west, and also in *Persia*. In *India* they say that these are divine years; but in *Etruria* and *Persia*, they insisted, that these were only natural years.

number of years, they are written 5,000 in round numbers in the *Ganés'a-puráńa:* and, as these 5,000 years are not said to be divine ones, we have a right to suppose, that they were meant originally for natural years. GANE'S'A, who is identified with VISHNU, and has also an inferior paradise in the *White Island*, and another in the *Euxine* or *Icshu Sea*,, thus says to a King of *Cás'i* or *Benares*, an antediluvian, and who, like BALI, wished much to be admitted into his elysium: "you cannot now enter my paradise in the *White Island;* you must wait 5,000 years," when, it seems, it was to be opened. "But in the mean time, you may reside in my other paradise in the *Euxine Sea.*" In the same manner ACHILLES, with CASTOR and POLLUX, and I believe CADMUS, PELEUS, &c. after residing a long time in the *White Island* in the *Icshu Sea*, were ultimately translated into the the original *White Island* in the *White Sea.*

The *White Island* in the *Euxine* or *Icshu Sea*, has much affinity with the *Limbus Patrum*, or paradise of departed ancestors, who waited there for the coming of CHRIST, who was to open the celestial, and real paradise, for their reception.

Divines in *India* declare, that the surest proof of the divine mission of an *Avatára* is his coming being foretold: that prophecies concerning a Saviour are often repeated in them, some very plain, and others rather obscure: that they are, in short, one of the fundamental supports of their religion and creed. That CRĬSHNA is considered as the first, in dignity and principal incarnation; and that the others are greatly inferior to this, and merely introduced to bring on the grand system of regeneration. In his time, the divine oracles were committed to writing, with a

more complete and perfect system of moral duties, and religious worship: and a race of *Bra'hmens* more pure, more enlightened, was introduced into *India*. CRĬSHNA is the last *Avatára*, or manifestation of the deity, but one; which, according to their sacred books and ours, will appear a little before the general dissolution of the world.

But let us return to the manifestation of VISHNU in the shape of a *Boar*, mentioned in the former passage. This manifestation is acknowledged to be that of the white Boar: for according to the *Tápi-c'hand'a*, a section of the *Scanda-purán'a*, the *Calpa* of the *Boar* consists of four inferior ones, denominated from four manifestations of the great *Boar*. The first subordinate *Calpa* is that of the *Curma-Varáha*, or *Tortoise-boar*, this is the *Curma-Avatára:* the second was that of *Adi-Vara'ha*, called *Adi-nátha* also, particularly by the *Jainas:* this is the *Varáha Avatára:* the third is, that of *Varáha*, with the title of CRĬSHNA: and the fourth, and present *Calpa*, is that of the *White Boar*, and which is very little noticed in the *Purán'as*. In the *Prabhása-c'hand'a*, a section of the *Scand'a-purán'a* also, these four *Calpas* have different names; and to them three more are added, making in all seven *Calpas:* and we are now in the seventh. These are the *Calpas* of VISHNU, under the seven different denominations of S'RÍYA-VRATTA, V'AMANA contemporary with BALI, VAJRA'NGA, CAMALA'-PRABHU (CAMULUS DEUS), SWAHARTA, PURUSHOTTAMA, and the seventh, DAITYA-SUDANA. In the fourth *Calpa* of CAMALA-PRABHU, 'and which is called also the *Calpa* of VARA'HA,' says the author, was born ICSHWA'CU the son of NOAH, in the *Tréta'* or second age: and the four last *Calpas* answer to the four *Calpas* of the *Boar*, the last of which is that

of DAITYA-SUDANA, thus called from VISHNU completely overthrowing the empire of the *Daityas* or *Demons*. These four *Calpas* are obviously to be reckoned from the flood. The *Calpa* of PURUSHOTTAMA, answers to that of CRĬSHNA; whose birth was followed by a general massacre of all the male children, through the whole country, by CANSA, in order to destroy him. But let us return to this wonderful child, who was to manifest himself to the world, when 3100 years of the *Cali-yuga* were elapsed, that is to say in the 3101, answering to the first year of the *Christian Era*, according to the *Cumáricá-c'hand'a*, and the *Vicrama-charitra*. According to the same respectable authority, the purpose of his mission, was to remove from the world wretchedness and misery: and his name was to be 'SACA, or the mighty and glorious King.

'SA'LIVA'HANA was the son of a *Tacshaca*, or carpenter; and was born, and brought up in the house of a potmaker. God is called DEVA-TASHT'A, or God the artist or creator, in *Sanscrit;* and also DEVA-TASHT'A', from which is derived DEO-TA'T or TEUTAT in the west, called TWASHT'A' or TUISTO by the *German* tribes. He produced MANNUS, man, the first MANU, who had three sons. In *Greece*, according to PINDAR, God the father of mankind, and creator of the world, was called πατὴρ Ἀριστοτέχνης, the father and best artist. This carpenter, the father of 'SA'LIVA'HANA was not a mere mortal, he was the chief of the *Tacshacas*, a serpentine tribe, famous in the *Purán'as*. There, they are declared to be the most expert artists and mechanics in the world: and they are by no means confined to a few trades; but their skill embraces every branch. When the elephant AIR'AVATA, with his immense retinue in the

same shape, came, in his way to the plains of *Utara-Curu* or *Siberia*, to worship at *Prabhása* in *Gurjarát*, they planned and executed a road for him through the N. W.* quarter of *India*, which is said still to exist. The *Tacshacas*, or *Tachas*, have, as usual, two countenances, that of serpents, and a human one, which they assume at pleasure.

The chief of them is obviously the same with the serpent AGATHO-DÆMON, the *Demi-urgos*, *Opifex*, and artist of the *Egyptians*, *Greeks*, *Gnostics*, *Basilidians*, &c. These sectaries asserted, that the serpent was the father, and author of all arts and sciences: and this serpent, they said, was the Christ, who was thus the son of a carpenter and artist; and at the same time an incarnation of the great serpent, exactly like SA'LIVA'HANA, the SACA, or mighty and glorious King. SA'LIVA'HANA was the son, or rather an incarnation of the great serpent; and his mother was also of that tribe, and incarnate in the house of a pot-maker. She conceived at the age of one year and a half, the great serpent gently gliding over her, whilst she was asleep in her cradle.

The heresy of the *Ophites* spread widely at a very early period: they extolled the serpent, as the author of the science of good and evil. Such was, they said, the majesty and the power of the brass serpent, exposed upon a stake in the desert, that whatever man looked up to him was immediately cured. In the same manner that the serpent had been exalted upon a stake in the desert, for the good of the people, so it was necessary that CHRIST should be exalted also, upon a stake or cross, for the good of

* Cumárícá-c'handa, p. 155.

mankind; and, in a scriptural sense, this serpent was the type of the Saviour of the world.

The pot-maker used to make figures of clay of all sorts, to amuse his grandson, who soon learned to imitate them; but he endued them with life. His mother carried him one day to a place full of serpents, telling him "go and play with them; they are your relations:" the child went and played with them, without fear, and without receiving the least injury. These two particulars are never omitted by the narrators.

About that time VICRAMA'DITYA, the Emperor of *India*, was made very uneasy, by general rumours, that the old prophecies were accomplished in the person of a child born of a virgin, and who would conquer *India*, and all the world. He sent emissaries every where to inquire into the truth of this extraordinary event, and find out this heaven-born child. They soon returned, and informed him, that it was but too true, and that the child was then in his fifth year. VICRAMA'DITYA immediately raised a large army in order to destroy the child, and his adherents, in case he should have any. He advanced with all possible speed, and found the child surrounded with innumerable figures of soldiers, horses, and elephants. These the child endued with life, and attacked VICRAMA'DITYA, who was defeated, and left on the field of battle, mortally wounded by the hand of young SA'LIVA'HANA.* The dying monarch only begged of his conqueror, that he would allow his own period to be equally current all over *India* with his. This the child granted, and then cut off

* See Asiat. Research. Vol. IX. p. 118, 120.

his head, which he flung into the middle of the city of *Ujjayini*, though at an immense distance. In the mean time VICRAMA'DITYA's army fell back toward *Ujjayini*, pursued by 'SA'LIVA'HANA's forces, and in their way crossed the *Narmadá*. There the army of 'SA'LIVA'HANA, consisting of soldiers of mere clay, was suddenly dissolved, and disappeared in the waters of the river. After this, we hear no more of 'SA'LIVA'HANA, except that he disappeared in the 79th year of the *Christian Era*, which is the first of his period. His name is not even mentioned in the lists, either of the Emperors of *India*, or of the Kings of *Ujjain*. Immediately after the death of VICRAMA'DITYA, his wife was delivered of a son, whom they wanted to crown Emperor of *India*, in the same manner as if 'SA'LIVA'HANA had never existed: but, being a posthumous child, he could not succeed to the empire; he was, however, perfectly eligible to the throne of the kingdom of *Málava;* and was of course immediately crowned at *Ujjain*.

This took place, according to the *Cumáricá-c'hand'a*, in the first year of the *Christian Era*, when 'SA'LIVA'HANA was in his fifth year; and it is remarkable, that our Saviour was equally in his fifth year at that time. The principal circumstances of this legend are taken from the Apocryphal Gospel of the infancy of JESUS, written in *Greek* in the third century; of which an *Arabic* translation, made at a very early period, is still extant. HENRY SYKE has given a translation of it in *Latin*, with some fragments still remaining of the *Greek* original. In these fragments it is declared, that the infant JESUS, when five years of age, amused himself with making figures of clay, which he endued with life. This idle story is mentioned also in the *Korán*, and is well

known to *Muselmans*. This remarkable coincidence of historical facts, legendary tales, and also of times, in my humble opinion, cannot be merely accidental.

Those, who acknowledge, that there are four VICRAMAS, always consider SA'LIVA'HANA as one of them, and assert that he had of course a famous bard at his court called CALÍDA'SA. Thus, when called VICRAMA'DITYA, he always appears alone as King of *Pratish'tána*, and as such he is represented in the appendix to the *Agni-purán'a*. This is the famous King of *Pratish'tána*, with the title of TRI-VICRAMA, or with the triple energy, as we have seen before: but his real name was VI-SAMA-SILA, or simply SAMA-SILA. As *Pratish'tána* is acknowledged to belong exclusively to SA'LIVA'HANA, as *Ujjayini* does to VICRAMA'DITYA, whatever King, called VICRAMA, or VICRAMA'DITYA, is represented as sovereign of *Pratish'tána*, the same is SA'LIVA'HANA: and, when we find a VICRAMA'DITYA said to have lived or reigned eighty-four years, him we must conclude to be SALIVA'HANA, according to the learned *Pandits*, and astronomers, who gave me this information.

There was a King at that time called VICRAMAMITRA, the seventeenth from CHANDRAGUPTA, according to the *Bhágavat*, *Brahmán'da*, *Váyu* and *Vishnu Purán'as*;* and VICRAMAMITRA or VICRAMITRA as it is erroneously spelt, is synonymous with VICRAMA'DITYA or VICRAM'ARCA; and that VICRAMAMITRA was intended for VICRAMA'DITYA, by the compilers of the *Purán'as*, admits of no doubt, for they say, that his father was GHOSHA-RAJA, who was the same with GANDHARUPA, as we have seen before.

* Sections on Futurity

ŚA'LIVA'HANA is considered under three different points of view, according to the three different objects and purposes of his mission; and accordingly he is said to be either an incarnation of BRAHMA', of ŚIVA, or of VISHNU. He is sometimes considered as conjointly possessing these three powers, and he is then said to be TRI-VICRAMA.

When the object of his mission is declared to be to destroy the kingdom, and power, of the *Daityas* or demons, he is then said to be an incarnation of ŚIVA; as in the legends of SAMA ŚILA King of *Pratish'tána.*

In consequence of this destruction, a regeneration takes place, as attested in the legends of the good MAN-D'AVYEH called ŚULASTHA, or he who was crucified. SA'LIVA'HANA is then said to be an incarnation of BRAHMA': and this is the general opinion of the inhabitants of the *Dekhin*, according to A. ROGER, and others.

But, when considered independently of these two energies, meek and benevolent, doing good to all mankind, he is then VISHNU, and this is the opinion of the ŚA'LIVA'NSAS in the provinces of *Benares* and *Oude.*

Thus we see, that ŚA'LIVA'HANA goes through the TRIMURTTI; and when these three energies are considered as united in him, he is then VI-SAMA-ŚILA-TRI VICRAMA King of *Pratish'tána*, called also *Saileyád'hára*, or simply *Saileyam*, in a derivative form.

PRATISH'TA'NA is the usual *Sanscrit* expression for any consecrated place or spot, and it implies here, the holy and consecrated city, and is synonimous with the

Bet-al-Kaddes, and *Bet-al-Mokaddes* of the *Mussel-mans*.

'SAILEYA-D'HA'RA' another name for it, is mentioned in the beginning of the *Jyotirvidábharana* an astronomical treatise, in which the author, giving an account of the six *'Sacas*, says that 'SA'LIVA'HANA would appear at *'Saileya-d'hárá*, or the city firmly seated upon a rock, which compound alludes to the city of *Sion*, whose foundations are upon the holy hills, " the city of our God, even upon his holy hill." *'Saileyam* would be a very appropriate name, for it is also, in a derivative form from *'Saila*, and is really the same with *'Saileya-'dhàrá:* and the whole is not improbably borrowed from the *Arabic Dâr-al-Sálam*, or *Dar-es-Sálem*, the house of peace, and the name of the celestial *Jerusalem*, in allusion to the *Hebrew* name of the terrestrial one. The *Sanscrit* names of this city of the King of *'Saileyam*, or *'Sálem* imply its being a most holy place, and consecrated apart, and that it is firmly seated upon a stony hill.

I mentioned, in the preceding essay, that 'SA'LIVA'HANA was also called SAMUDRA-PA'LA, that, is to say, fostered by, or the son of, the ocean. This implies, that either he, or his disciples, came by sea; and this notion has a strong resemblance with a passage from the second book of *Esdras*, in which CHRIST is represented, as ascending from the sea, *firmly seated upon a rock*. This christian romance is of great antiquity, for it is mentioned by IRENÆUS, CLEMENS of *Alexandria* and TERTULLIAN, who considered it as a book of some antiquity, and almost canonical.

ALL these sacred, and most expressive epithets, the *Hindus* have applied to an ancient city in *India*

now called *Pattana*, on the banks of the *Godáveri*: but with what propriety, will appear hereafter. Be this as it may, whether in *India* or out of it, there at *Saileyam*, SA'LIVA'HANA was to be born, of a virgin, one year and a half old: his father was to be the great *Tacshaca* or carpenter, and himself was to live in the humble cottage of a pot-maker. This legend is somewhat differently told by others, as we have seen in our account of VICRAMA'DITYA. His mother was a married woman; but her husband, a *Bráhmen*, died, whilst she was still very young. She conceived by the great *Tacshaca*, carpenter or artist, and when her pregnancy became obvious, her two brothers, ashamed of her seemingly unwarrantable behaviour, left *Pratish'tána*, and the unfortunate young woman, thus unprotected, found an asylum in the humble cottage of a pot-maker: and, in the VICRAMA-CHARITRA, she is said to be his daughter; whilst according to another legend, 'SIVA was incarnated in the womb of the wife of King SURA-MAHENDRA'DITYA-BHU'-PATI, and there was born, under the name of, SAMA-'SILA-TRI-VICRAMA, or with the triple energy.

It is declared in the VICRAMA-CHARITRA, that the birth of this divine child, from a virgin, had been foretold one thousand years before it happened, nay some say two thousand. That a Saviour was expected with a regeneration of the universe, all over the more civilised parts of world, in consequence of certain old prophecies, cannot be denied, at least in my humble opinion. It was firmly believed in the west: it was so in the east; and in the intermediate countries among the *Hebrews*, it was a fundamental tenet of their religion. Whether this notion was borrowed from the *Jews* or not, is immaterial to

the present subject. It is by no means necessary to have recourse to this expedient, in order to account for this once prevailing opinion, and I am rather inclined to think, that this was not the case.

The time of his birth is thus ascertained from the *Cumárica-c'han'da*, a section of the *Scanda-purâ'na*,* in which we read, *Tatah trishu sahasréshu s'até chápyadhicéshu cha; 'Saca námá bhavishyas'cha yótidáridra háraca.* "When three thousand and one hundred years of the *Cáli-yuga* are elapsed, then 'Saca will appear and remove wretchedness and misery from the world." But it is necessary to observe here, that this is the first year of his reign, and that it has nothing to do with the first of his era. In the same manner, the author of that section says, that the first year of Vicrama'ditya's reign answered to the 3021 of the *Cali-yuga*, which date is equally unconnected with the first year of his era. In the appendix to the *Agni-purán'a*, we find that 'Sa'liva'hana began his reign 312 years after the death of Cha'n'acya, and Chandragupta, which places it also in the first year of our era. It is remarkable however, that in the appendix to the *Agni-purán'a*, and the copy from it in the *Ayin-Acberi*, the years are computed, or reckoned, from the first of 'Sa'liva'hana's reign, answering to the first of Christ, but not from the first of the former's era.

'Sa'liva'hana died in the year of our era 79, and he lived eighty-four years. According to the Vicrama-charitra, he was in the fifth year of his age, when he manifested himself to the world, and

* Paragraph 42.

defeated VICRAMA'DITYA. This places his manifestation in the first of the *Christian Era*, when CHRIST was also in his fifth year and in the latter end of it, for he was really born four years before the beginning of our era.

This places, also, the accomplishment of the old prophecies, VICRAMA'DITYA's inquiries after this divine child, born of a virgin, exactly in the first year of our era. For. a thousand years before that event, the goddess C'ALÍ had foretold him, that he would reign, or rather his posterity, according to several learned commentators in the *Dekhin*, as mentioned by Major MACKENZIE, till a divine child, born of a virgin, should put an end, both to his life and kingdom, or to his dynasty, nearly in the same words of JACOB* foretelling to JUDAH, that the sceptre should not depart from him, *or his Dynasty*, until SHILOH came; 'SA'LIVA'HANA or King 'SA'LA.

As to his character, it is declared in the *Cumárica-c'han'da*, as we have seen before, that he would come for the purpose of removing wretchedness, and misery, from the world.

In the appendix to the *Agni-purâ'na*, it is declared that in the holy and consecrated city of *Pratish'tána*, firmly seated upon a rock, called *Saileya-d'hârá* or *'Saileyam*, through the mercy of 'SIVA, would appear 'SA'LIVA'HANA, great and mighty, the spirit of righteousness and justice, whose words would be truth itself, free from spite and envy, and whose empire would extend all over the world (or in other words, that the

* Genesis, chap. 49. v. 10.

people would be gathered unto him) the conveyor of souls to places of eternal bliss. On account of this benevolent disposition, he is compared in the *Vansávali* to DHANANJAYA or ARJJUṆA, whose character is so well delineated in the inscription on a pillar at *Buddál:* He did not exult over the ignorant and ill favoured: he neither vainly accepted adulation, nor uttered honey words, and was the wonder of all good men. His wonderful equanimity on all occasions, and with regard to every one, of whatever rank in life, and whatever might be their natural faculties, and mental dispositions, are implied by the epithet of VI-SAMA-SILA bestowed upon him.

His conception was miraculous, and in the womb of a virgin: he was the son of the great artist, and the virtue of his mother was at first suspected: but choirs of angels came down to worship her. His birth was equally wonderful: choirs of angels with the celestial minstrelsy attended on the occasion, showers of flowers fell from on high. The King of the country, hearing of these prodigies, was alarmed, and sought in vain to destroy him. He is made absolute master of the three worlds, heaven, earth and hell: good and bad spirits acknowledge him for their lord and master. He used to play with snakes, and tread upon the adder, without receiving the least injury from them: he soon surpassed his teachers; and, when five years of years of age, he stood before a most respectable assembly of the doctors of the land, and explained several difficult cases, to their admiration, and utmost astonishment; and his words were like ambrosia.

In the copies of the *Vansávali*, current through

the western parts of *India*, he is constantly called SAMUDRA-PA'LA; because either he, or some of his disciples, came by sea; and he is of course the same with the *Mléch'hávatára*, or incarnation of the deity among foreign tribes, mentioned in several astronomical tracts; and he is mentioned, in that character, in the section erroneously attributed, to the *Bhavishya*. There he is declared to be RU'MADE'S'A'DHIPATI-SACE'S'WARA, the lord and master of the empire of *Rome;* and the author of the sacred period current through that vast empire; and which, according to the appendix to the *Agni-purán'a*, began to prevail over that of VICRAMA'DITYA in the year 676 of our era. We have seen before, that he was born for the purpose of removing misery from the world, and to check the power of the demons; and, at the earnest intreaties of the subaltern deities on earth, and all good men, who were groaning under their tyranny, SIVA comforted them, and assured them, that after a certain time, he would be incarnated in the character of VI-SAMA-SILA, with the title of TRÍ-VICRÁMA, or with the triple energy.

The occasion of his being born, is declared also in the *Vrihát-cat'há*. The gods, being vexed by the wicked, went to MAHA'-DE'VA, and said, "you and VISHNU, have destroyed the *Asuras* or *Demons*, but they are born again as *Mlech'has*, who constantly vex us and the *Bráhmens*. They will not allow sacrifices to be performed, but destroy the implements and holy utensils: they even carry away the daughters of the *Munis*." MAHA'-DE'VA promised relief, and caused one of his forms, or emanations, called MA'LYAVA'NA, to be incarnated, saying to him, "go and destroy the wicked: all the world

will submit to thy power, as well as good and wicked spirits." Then MAHA'DE'VA appeared to the father, informing him, that his wife would conceive, and the fruit of her womb be an incarnation of the deity: and he directed that his name should be VICRAMA. When his mother had conceived, she became resplendent like the morning sun; and this resplendence answers to the *Núr* of the *Muselmans*, from which ISSA proceeded. Immediately all the heavenly spirits came down to bow to her, and worship her. When the child was born, the celestial music was heard, and a shower of flowers took place. The high priest, who was childless, obtained also a son, as well as the prime minister.

In the legends relating to 'SA'LIVA'HANA, it is in general asserted, that his mother being found with child, her character suffered so much, that her two brothers, through shame, left their native country.

In the present legend, 'SA'LIVA'HANA, under the name of VI-SAMA-SILA with the triple energy, is represented as the son of a King, and as residing at *Pratisht'ána*, the consecrated city, or *'Saileyam*. We are then informed, that young VI-SAMA-SILA made a surprising progress in learning, and soon surpassed his teachers. His father then resigned the kingdom to him, and SAMA-SILA became king of heaven, earth and hell; all spirits, good and bad, obeyed his orders; his resplendence was like that of the sun, and his fame reached the *White Island* in the *White Sea*. The scene is then transferred to *Ujjain*, where he appears like VICRAMA'DITYA: then follows a minute account of his words; but even then, there is

no mention made of his wars with SA'LIVA'HANA, for a very obvious reason, though in the latter part the story is somewhat misrepresented.

Let us now consider SAMA-SI'LA or SA'LA-VA'HANA, an incarnation of the great *Tacshaca*, in the humble cottage of a pot-maker in the skirts of *Saileyam*, or the consecrated city, as related above.*

Though without teachers in that humble station, he surpassed all the learned in knowledge and wisdom; and I have already mentioned the famous will, which puzzled all the princes and learned men of the country, till a solution of the mystery was given by SA'LIVA'HANA, who was then in the fifth year of his age.†

There is a curious account of SA'LIVA'HANA, and of his crucifixion, in the *Rája Taranginí*, or history of *Cașmír*. There we read, that 145 years after the accession of VICRAMA'DITYA to the throne, there appeared King 'ARYYA, who was before prime minister of King JAYA-INDRA, and whose name signifies the lord of victory, or of victorious hosts. It was decreed, that he should be wretched, and persecuted all his life time, and ultimately that he should die upon a cross; that he would be brought to life again, through the assistance of a *Phaní-Canyá*, or damsel of the *Serpentine* tribe; and then would become a great and powerful monarch. The King, having been circumvented by his enemies, threw into a loathsome dun-

* Page 39.

† As. Res. vol. ix. p. 128.

geon SANDHI-MATI, for such was the name of his prime minister. But his enemies were not satisfied, and they informed the King, that SARASVA'TÍ, *divine wisdom*, or collectively those endued with divine knowledge, had declared that he would be a King. JAYA-INDRA, called CHANDRA in the *Ayín-Acberi*, ordered him immediately to be crucified. There he remained, till his flesh dropped off, or was torn off by wild beasts. A certain holy man happened to pass by, and reading his destiny in the *Brahmánda*, or in his scull, immediately resolved to bring him to life again. For this purpose he performed the *pújá*, and after the usual ceremonies and invocations, he rung the bell, and was surrounded by a fiery meteor, which announced the presence of the *Yóginís*, or forms of DE'VÍ. Then, arming himself with a scimitar, as usual on such appearances, he went to the forest, where the prime minister hung upon the cross. He was immediately surrounded by *Yóginís*, one of whom, the *Phaní-canyá* I mentioned before, arranged the bones together, and SANDHI-MATI stood upon his legs. The King, hearing of this, went to the forest, when all the *Yóginís* disappeared: this resurrection of SANDHI-MATI took place in *Muni-puri*, or the city of holy contemplators. He then ascended the throne, and, on account of his transcendent virtues, was called ARYYA-RA'JA, or the good King.

The author gives us then an account of his excellencies, and of his worth; and informs us that he was a servant and favourite of MAHA'DE'VA. The ways of the supreme being, says he, are wonderful, and truly pass all understanding and belief; yet there are similar instances recorded of old, such as in the

case of *Paricshita*, &c.* The difference between the two eras of VICRAMA'DITYA and 'SALIVA'HANA, is made here to be 145 years, according to the computation used all over the *Dekhin:* for in the northern parts of *India*, they reckon only 135.

King 'ARYYA is the same with the PRA-'ARYYA-SIRA of the followers of GAUTAMA in *Siam*, and other countries to the eastward of it. This signifies the mighty and venerable Sire, or chief of the 'ARYYAS or *Christians:* and with him BUDD'HA waged war, as well as with his disciple PRA-SWANA, thus called because he loudly preached against the doctrine of BUDD'HA. The 'ARYYA-RA'JA is also the same with DE'VA-TWASHTA' or DE'VA-TA'T, who was crucified by order of BUDD'HA. King 'ARYYA was succeded in the throne by GÓPA'DITYA, the grandson of king YUDHISHTHIRA, the immediate predecessor of PRETA'PA'DITYA, who brought VICRAMA'DITYA from distant regions to *Cas'mír*, and made him King of that country. PRETA'PA'DITYA, and VICRAMA'DITYA are epithets synonymous, or very nearly so.

Many learned *Hindus*, for several centuries past, conceive that the eldest VICRAMA'DITYA was far from being contemporay with 'SA'LIVA'HANA; and of course conclude, that he is not the famous 'SACADWISHI or 'SACA'RI, that is to say the enemy of 'SA'LIVA'HANA; and consequently they suppose, that 'SACA'RI must have been the epithet of some more modern VICRAMA'DITYA. This notion is countenanced certainly in several of the lists, which I have produced; and the author of the *Rája-Tarangin'i* ac-

* See *Rája Tarangini*, and the extract from it in the *Ayin Acberi*, history of the Kings of *Cashmir*.

knowledges, that it was the opinion of many; and though he does not countenance it, shews plainly, that in his time it was by no means a new idea.* The compiler of the *Vansávali* seems willing to adopt it, when he says that many learned men reject the whole, as altogether fabulous, and unwarrantable. Their reason, I am told is, that SACA is the MLE'CH'-HA'VATA'RA, who did not appear, or rather whose period was not known in *India*, till about 1200 years ago. In conformity to this idea, in the section attributed to the *Bhavishya-Purán'a*, SACA is declared to be the lord and master of *Rome*, which is to be taken in a spiritual sense: and in the *Agni-purán'a*, the introduction of his period into *India* is made to correspond with the year 676 of CHRIST.

This *Mléch'hávatára*, or incarnation of the deity among foreign tribes, is peculiarly noticed in the *Rómaca-Siddhánta*, an astronomical treatise, according to the system of the *Rómacas*, or *Romans*, called *Romaicoi* (Ρωμαικοι) by the *Greeks*. This treatise is said to be very voluminous, and is so scarce, that I have not been able to procure it; and I believe it is not to be found at *Benares*. This deficiency I have been able to supply from the *Súryárun'a-samváda*, the *Sidd'hánta-Rája*, and the *Súrya-Sidd'hánta*. The sun, having been appointed by *Brahmá*, to be the eye witness of all transactions in this world, and to regulate the hours and time, refused to obey, and withdrew into the desert, to perform *tapasya*, in order to be reunited to the Supreme Being. In consequence of this refusal, he was cursed by PURU'HU'TA, or INDRA, and VIRANCHI, or BRAHMA'. In the *Súrya-Siddhán-*

* SACA'RI Vicramáditya iti sabhramamás'ritaih, anyair atrányathá lec'hivis'anivádi cadarthitam.

ta, it is said, that MAYA, the chief engineer of the *Daityas*, and the son of TWASHṬA, made *tapasya* in honour of the sun, in order to obtain astronomical knowledge; the sun appeared to him, and said, "I know the rectitude of thy heart, and I am much pleased with thy *tapasya*. I shall therefore impart unto thee the doctrine of TIME, and of the revolutions of the planets. But as no body can bear my refulgence, and as it is not in my power to stop my course, for a single moment (for this reason go back to thy own *puri*, town, or place of abode, and there I shall impart unto thee knowledge, in the town of *Rómaca*, where I shall become the MLE'CH'HA'VATA'RA, through the curse of BRAHMA'). This form of mine, here present, will teach thee every thing:" then the sun, having directed this new form to teach him, disappeared, and MAYA bowed himself to the ground before this emanation.

The *slóca* between the two brackets is not found in general in the copies of the *Súrya-siddhánta*; yet without it there seems to be something wanting: but whether an interpolation or not, its purport is established in the following astronomical treatises. In the beginning of the *Sidd'hánta-Rája*, the author says, from history *(Itihása)* I know, that BHA'SCARA-SU'RYA became a *Rómaca*, through the curse of PURU'HU'TA and VIRANCHI. He became a *Yavana* in *Rómaca-pattana*, and in the garb and countenance of a *Rómaca*, he composed a most complete treatise on astronomy.

In the beginning of the *Súryáruṇa-samváda*, the sun is introduced, saying, "I gave the *Rómaca-Sidd'hanta* to RÓMACA, whilst living among the *Yavanas*, in consequence of BRAHMA"s curse. RÓMACA taught

it *Rómacá-nagaré* in the town of *Rome*, for he dwelt among the *Mléch'has* in consequence of that curse;" *Rómaca-puri* is the town of *Rome in the west*. "Then," says *Arun'a*, "how came you to assume the countenance of a *Mléch'ha* in the west, in a land of unrighteousness." "BRAHMA' cursed me," answered the sun, "and said be thou born in the west, in *Rómaca-pura*, and of the *Mléch'has*, who are ignorant of the *Védas*, of the *Yajna*, or of *the proper mode of performing* sacrifices, *Carma*, religious rites and discipline; who have rejected *sarvadharma*, all religious duties, are *dush'ta*, inclined to evil, *nástica*, heretics; and who (the *Romans*) are a *Yavana* tribe, guilty of every sort of uncleanliness. Thus, in that shape, I taught them astronomy."

This MLE'CH'HA'VATA'RA, *or superior incarnation* of the deity among foreign tribes*, RUMA-DE'S'A-PATI *the lord of the country or empire of Roum, or Rome, (because his doctrine, institutes, and laws prevail through it;) Rómaca-nagaré, said to reside in Rome its metropolis, (because he is revered and worshipped there with unusual magnificence;)* SACES'WARA *the lord of a sacred period, (or as I think it should be understood, after whom it is denominated,)* is obviously JESUS CHRIST; at least it appears so to me. From his being a *Saces'wara*, the *Hindus* suppose him also to be a great astronomer. In the *Súrya-Siddhánta*, he is repeatedly called SRI'-SU'RYA'NSA, or the blessed SU'RYA'NSA; he is also styled RÓMACA-AVATA'RA, or simply RÓMACA. In consequence of this, SA'LIVA'HANA is considered all over *India* as a great astronomer, or as a prince remarkably fond of astronomy.†

* Inferior incarnations are denominated Avantara.

† See also Mr. GENTIL's Voyage, p. 214 and 238.

Various are the opinions about SA'LIVA'HANA: in general it is believed, that he did not die, but was translated to heaven, being a SACA; after having retired, for many years, into the desert, to give himself up to heavenly contemplation.

I have mentioned, that the *Hindus* represented SA'LIVA'HANA in his fifth year, exactly like our Saviour in the first year of the *Christian Era:* it was not in consequence of deep chronological investigations, that they seemingly attempted to correct the mistake of DIONYSIUS EXIGUUS, or *the little;* but because it was so in the Apocryphal Gospel of the infancy of JESUS, or rather because it was the general opinion in the east, that JESUS manifested himself to the world at that age. SA'LIVA'HANA did not marry, nor had he any offspring: for even in *India*, he is looked upon as a mysterious, and supernatural being, and called an *Utpáta*, or prodigy.

I have thus arranged and brought together all the information I could procure, concerning SA'LIVA'HANA, under that name, or any of his well known titles, and as King of *Pratishtána:* for SA'LIVA'HANA and that holy city are intimately related to each other, and cannot be separated. Yet we find SALIVA'HANA sometimes leaving *Pratish'tána*, and going to reside at *Ujjain*, after the defeat of VICRAMA'DITYA; as in the legends relating to him, under the names of VI-SAMA-SILA, and DHANANJAYA. It is nearly the same with VICRAMA'DITYA, whose history is equally connected with *Ujjihán*, or *Ujjayiní;* I mean the real one, for there were several of them.

There are many other legends, concerning a certain holy man, who seems to be meant for SA'LIVA'HANA; but as the application is not so obvious, they will be inserted in a distinct place by themselves.

The followers of BUDD'HA and JINA, as well as the followers of BRAHMA', claim SA'LIVA'HANA as their own; and in the *Calpa-sutra-Calicá*, SA'LIVA'HANA, as his name is generally written, is said to be a form of JINA, with the title of SA'BACA-PATI, or SRA'BACA-PATI. The followers of GAUTAMA, the *Bódhi-Swata* in *Siam*, and the *Burman Empire*, called him DE'VA-TAT, which is a corruption from DE'VA'-TASHT'A' or DE'VA-TWASHT'A', the divine artist, or *Tacshaca:* and that it is so, is asserted from the *Buddha-charitra* in my possession, wherein he is called VIS'VACARMA. They say, that he was a collateral form, or the brother of BUDD'HA, and they are fully persuaded, that he is the same with CHRIST. Their being made contemporaries, shews that through this whole romance, there is an obvious allusion to the wars and feuds between their followers in subsequent ages.

This singular mode of treating historical events, is not peculiar to the *Hindus;* for the *Greeks* seldom distinguished between the tutelar deities, and their disciples, associates or followers, who were called by their titles: These tutelar deities were supposed to lead their armies in an invisible manner, though they sometimes appeared, and victory was always ascribed to them. Thus the wars of the *Muhamedans* with the *Spaniards*, might be ascribed to MUHAMED, and ST. JAGO the champion of *Spain*, who led constantly her armies, and destroyed very many *Moors:* hence he

is called ST. JAGO MATA MOROS. DIODORUS, the *Sicilian*, says the same of ALEXANDER the son of JUPITER;* and, though dead, he was supposed to be at the head of the armies, and to regulate the conduct of their chiefs, and thus every victory was ascribed to him.

In many parts of the *Peninsula*, *Christians* are called, and considered, as followers of BUDD'HA; and their divine legislator, whom they confound with the apostle of *India*, is declared to be a form of BUDD'HA, both by the followers of BRAHMA', and those of JINA: and the information I had received on that subject, is confirmed by F. PAULINO.†

Some legendary tales, obviously relating to the death of our Saviour, have found also their way into the *Peninsula*. There was a certain *Peishé-cára Brahmen* (for thus the *Christians* were called, and CHRIST in the Apocryphal Gospels, and by the *Manicheans* was considered as a *Peishé-cár Bráhmen*, an artist, manufacturer, or carpenter,) who came to a certain place, and there loudly proclaimed, that all persons in distress should come to him; and that he would take them under his protection, and EVEN LAY DOWN his life for them. He was then sitting like a *Muni*, or contemplator; and many came to him: among them was a thief, who had robbed the King's palace to a considerable amount. The officers of justice soon arrived in pursuit or him, but the holy man would not deliver him up, saying, that he was

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Diod. Sic. p. 660 and 678.
Systema Brahmanicum, p. 161

ready to die in his place; and in that of all those who claimed his protection. The King ordered, that the holy man should suffer immediate death, upon a *Sula* or *Suli*, which means a stake, either one for empaling, or a gibbet, or cross. Crucifixion being unknown to the *Hindus*, they of course, have no name for it: and *Sula* or *Suli*, originally a stake, signifies also a gibbet, or the cross; exactly like *Stauros* in *Greek*. It is so even in the *Persian* language; and so it was among the *Romans*, according to SENECA;* crucifixion signified both empaling and extending the arms upon a cross bar; for these two modes of punishment were equally in use among them; a circumstance very little known.

Then the holy man was stretched upon the *Sula*, amidst the lamentations of the surrounding multitude, to whom he observed, that he came for that purpose, (to atone with his life for the sins of others). The *Sula* was suddenly changed into a *Sála*, or tree loaded with flowers; a *pushpa-varsha* took place, as usual on such occasions; that is to say, it rained flowers from on high; a celestial car, with divine choristers, came down to translate into heaven the holy man, who, taking the thief by the hand, said, "thou shalt also be with me in *Cailása* or paradise." Thus they went to *Cailása* in the presence of an immense crowd, who with uplifted hands, loud huzzas, and tears of joy, testified their satisfaction, at the sudden change. The *Muselmans*, and the *Manicheans*, with many other sectaries, will not allow that CHRIST was really crucified. Some say, that it was a mere illusion; others allege, that he

* SENECA de Consol. ad Marcium, p. c. 20.

disappeared, and went to heaven. The *Manicheans*, who spread their errors at a very early period, not only in the northern parts of *India*, but also in the *Peninsula*, always represented CHRIST crucified upon a tree, among its foliage and flowers. Though this legend is not applied to SA'LI-VA'HAN, or SA'LA-VAHAN, as it is pronounced in the *Dekhin*; yet, when the good *Peishé-car Bráhmen* was stretched upon the *Sula* or *Suli*, he was really *Suli-váhana*, or cross borne: and when the *Sula* was changed into a *Sála* or tree, he was certainly *Sála-váhan*, or *Sali-váhan*, he was exalted, or borne upon the tree. Though the punishment of the cross be unknown to the *Hindus*, yet the followers of BUDD'HA have some knowledge of it, when they represent DE'VA-TAT, crucified by order of BUDD'HA upon an instrument somewhat resembling a cross, according to the account of several travellers to *Siam*, and other countries.

We read in *Sanscrit* lexicons, that SA'LIVA'HAN was also called HA'LA a plough: it should be HA'LA-VAHANA, or in composition, HA'LI-VA'HANA; he who was borne, or crucified upon a plough. The old *Indian* plough had originally the shape of the letter Y, like the old *Latian Furca*, or bifurcated stump of a tree. To one branch the plough-share was fixed; and the other branch served as a handle. In the statues of VISHNU, and BALA-RA'MA, the plough in their hands is represented nearly in that manner; and, from that circumstance, BALA-RA'MA is called also HA'LA, and HA'LI, or he with the plough.

The legend of the good *Peishé-car Bráhmen*, is found in Major MACKENZIE's historical sketches of the ancient kings of *Warangola*, otherwise I should

not have presumed to insert it here. It is interwoven with the history of the first Kings of that country, and of course the compilers by no means entertained an idea, that it was anterior to the *Christian Era.*

As I was mentioning this traditionary legend to some learned *Pandits*, they informed me, that the same, or one at least very much like it, was to be found in the *Mahá-Bhárata*, the *Sahyádri-c'handa* a section of the *Scanda-puráńa*, and in the *Bhágavata* also. I produced the books, and they pointed out the respective pages immediately. I read the whole, and found it illustrated with circumstances of a most extraordinary nature.

In the *Bhágavata*, and its commentary, this legend is only alluded to. In the *Mahá-Bhárata* there is a short account of the transaction; but in the *Sahyádri-c'handa* the legend is drawn to a very great length,* and the principal features, and circumstances in these legends, which in reality are but one, are the following.

There appeared, in the *Dekhin*, a most holy *Bráhmen*, of those called *Peishé-cáras*, *Tacshacas*, *Sábacas*, or handicraftmen, and whose name was MANDAVYAH. He proclaimed, that he came for the sole purpose of relieving the distressed; and that whatever men claimed his protection, he would readily grant it to them, and even lay down his own life for them. Very many of all descriptions came accord-

* Bhágavata; Section 1. p. 13. Mahá-Bhárata; Section 1.

ingly; and among them a thief, who being pursued by the officers of justice, claimed his protection, which he readily granted, and was really crucified in his room. He then ascended into heaven, and took the thief along with him.

This circumstance is otherwise related in the above *Puráńas*. A numerous banditti had taken shelter near the holy man, thinking themselves safe: but the officers of justice arriving, they were seized, and immediately crucified. The holy man was supposed to be a thief, numbered among them, and crucified also. He did not open his mouth, but remained absorbed in holy contemplation, inwardly repeating sacred names, with his arms extended, and uplifted.

Whilst on the cross, all the *Rishis* crowded from all parts of the world, in the shape of birds, to see him, and comfort him. A certain thief, who was also covered with leprosy, and, in consequence of it, deprived of the use of his limbs, was accidentally dropped at the foot of the cross, wrapped up like a child in his swaddling clothes. The man, after remaining there some time, was perfectly cured; and, being irradiated, repented, lived to a good old age, and obtained eternal bliss. A thick darkness overspread the face of the world; and the animated creation was in the utmost distress, and consternation. The holy man, being afterwards taken down from the cross, descendedin to hell, and there encountered, and overcame, death, or YAMA. Then a general renovation of the world took place, under the inspection of BRAHMA. The holy man, from his having been crucified, was ever since called SULASTHA, or the cross-borne, which is synonymous with

SALIVA'HANA. If we prefix to this abstract the legends concerning the infancy of SA'LIVA'HANA, and the era of his manifestation, we shall have the principal circumstances of the life of our Saviour, either from the true Gospels, or from the Apocryphal ones.

There are two singular circumstances in these legends: the first is that it was decreed, that the iron should pierce the body of MAND'AVYAH as well as that of CRĬSHNA, because both were accursed, though guiltless. The second is, that neither CRĬSHNA nor MAND'AVYAH died, the first in consequence of his wound, nor the second after being crucified; and both are represented as contemporaries.

The *Christian* sectaries in the first ages, and MUHAMED himself with the *Muslemans* to this day, highly reprobated the idea of CHRIST dying upon the cross, and even considered it almost a blasphemy. CRĬSHNA, though guiltless, was involved in the general curse denounced against his whole tribe, by which all the *Yadus* were doomed to be pierced with iron, and to die. Neither CRĬSHNA nor MAND'AVYAH could die; but they were to be brought, as near as possible, to the point of death, that the words of the *Muni* should not be done away. Besides, YAMA, as King of death, has a claim upon every individual, and with regard to some exalted characters, he must be satisfied, and a compromise must take place. But another difficulty arises; YAMA cannot condemn a man to die, without some reason; it would be unjust in him, who is also King of justice. All incarnations of the deity, however dignified and exalted, such as that of CRĬSHNA, which is considered as the first in rank, and the most perfect of all; all

manifestations of the deity, I say, on becoming flesh, are more or less subjected to the infirmities, and even the weakness of human nature, being certainly involved, in some measure, in the gloom of *máyá*, or worldly illusion. In this case, YAMA is always sure to find some taint of negative guilt, in consequence of which he can at least bring them to death's door: and it was found that MAND'AVYAH, in his infancy, had destroyed a feeble and innocent insect, by piercing him either with a needle or with a blade of grass. This fatal needle was the only thing that CHRIST ever possessed in this world; yet, however insignificant in itself, it was certainly a worldly implement, and it prevented his admission into heaven, according to *Muselmans* in *India;* neither will he ever be admitted till after his second manifestation, at the end of the world. Others say, that he was admitted into the fourth only, instead of the highest heaven, on that account.

We read in the *Mahá-Bhárata*, that there was a most holy and pious *Bráhmen* called MAND'AVYAH, who was making *tapasya* with his arms uplifted, absorbed in holy contemplation. Some *lóptras, lifters* or *thieves*, placed themselves near him, with their stolen goods, thinking to be safe; but the King of that place, who was in pursuit of them, ordered them to be crucified, and as the holy man gave no answer, he was numbered among them, and crucified with the rest. In the night-time, all the *Rĭshis*, hearing of his misfortune, flocked from all quarters, in the shape of birds, to comfort him. In the mean time the thieves died on the cross; but the holy man remained meditating, without uttering a word, with his arms uplifted. The King hearing this, immediately saw that MAND'VYAH was a *Rĭshi*, and hastened

to take him down from the cross; and then falling at his feet, humbly begged his forgiveness. Immediately the *Rĭshi* descended into hell, and asked the King of death, and of justice, how he could allow him to be crucified, as he was guiltless. YAMA answered, that in his infancy he had pierced an innocent insect with a blade of grass. The *Rĭshi* said, that at that age he could not incur guilt of any kind, and of course drove him out of the infernal kingdom; and willed, that he should be born of the womb of a woman of the *Sudra* tribe. This was effected in the house of VICHITRAVĪRYA, who was dead; but DWAIPA'YANA, or VYA'SA, raised seed to him, through his wife and a handmaid. YAMA was born of the latter under the name of VIDU'RA, and remained on earth 100 years, during which the government of the infernal regions was committed to ARYAMA', according to the *Bhágavata*. In the *Sahyádri-c'hand'a*, we have a most prolix account of this momentous event, which I shall give in abstract.

'Whatever man listens with due attention to this legend, his sins shall be remitted. In the forest of *Dandaca*, in the *Sahyádri* mountains *in the Dekhin*, on the banks of the river *Pran'itá*, was the hermitage of MAND'AVYAH, a most holy *Rĭshi*, most benevolent, and no accepter of persons. There he remained, between five fires, entirely taken up with holy contemplation, and inwardly repeating sacred names. A numerous banditti, with the goods they had stolen, being pursued by the King at the head of a strong party, took shelter near the holy man. As soon as the King came, he ordered them all to be crucified immediately; and the holy man was numbered among them, and from his being crucified, he

was, from that time, surnamed *Sulast'ha*, or the cross-borne.

'There lived in the adjacent village a most virtuous and faithful wife, who was married to a thief, and a debauchee, whose whole body was covered with leprosy: some of his limbs had dropped, and others were deprived of motion. He was very fond of gambling, and his faithful wife used to carry him, wrapped up like a child in swaddling clothes, to a gambling house, where he spent a great part of the night, when she carried him back in the same manner. It was midnight, and the night very dark, she passed near the cross, and stumbling against it, she shook it violently, and let her husband fall at the foot of it. The holy man being put to great pain, said to her, at the rising of the sun, thy husband shall die. Such are the powers of a virtuous and faithful wife, that she forbade the sun to rise. A thick darkness covered the face of the world, and lasted 10,000 years, during which the gods and the created beings were in the utmost distress and consternation.

'All the gods, with SIVA and BRAHMA, went to VISHNU the preserver, who resides on the northern shores of the *White Sea*, that is to say, in the sacred isles in the west. VISHNU was very much embarrassed, as he did not wish to reverse the decrees of either of two such exalted characters. After some consideration, he said to the gods, "ANASU'YA', the wife of ATRI, is most virtuous and faithful; go to her, and prevail upon her to go and speak to the wife of the thief, when they will together come to some arrangement." ANASU'YA' consented, and after having discussed the matter with her, every thing was

settled. In her character of a virtuous and faithful wife, she ordered that the husband should live; and GUN'AVATÍ, the thief's wife, ordered the sun to rise. Still it was necessary to satisfy the holy MAND'AVYAH, whose words could not be done away. They agreed, that in future all married women, when it is dark, or night, should remain as in a state of widowhood, taking off their nuptial dress and ornaments. The benevolent MAND'AVYAH was easily pacified, the sun rose as usual, darkness was dispelled; the holy man, who had remained all the while absorbed in contemplation, with his arms uplifted, descended from the cross; the leper, at the foot of it, was cured of his disease, lived to a good old age, and obtained eternal bliss; and the two virtuous and faithful wives were crowned with honor and glory. The air was filled with numberless choirs of celestial minstrels, singing heavenly strains, and the whole concluded with a shower of flowers from on high. In the mean time, the animated beings had all perished; and BRAHMA' was directed to proceed immediately to a new creation, and a general renovation of the world took place.

II. Christianity certainly had made a great progress in the *Peninsula*, even at a very early period. The venerable PANTÆNUS of *Alexandria* visited *India*, about the year 189, and there found *Christians*, who had a copy of the Gospel of ST. MATTHEW in *Hebrew*, which he carried to *Alexandria*, where it existed in the time of JEROME. FRUMENTIUS, the Apostle of *Abyssinia*, who had resided a long time in *India*, and spoke the language remarkably well, preached the Gospel in the southern parts, where he had great influence, and was highly respected, having been for many years prime minister, and regent of one

of the Kings, during his minority. There he converted many *Hindus*, and built many churches, and then went to *Abyssinia*. He came to *India* with his brother ADESIUS, along with their paternal uncle, a native of *Tyre*, who was a *Christian*, and a very learned man. He travelled into the interior parts of *India* as a philosopher, and having satisfied his curiosity, he re-embarked on his way back with his two nephews; but, happening to put into a certain harbour, in order to get a supply of water, they were, at their landing, suddenly attacked by the natives. Many perished, and the rest were carried into captivity. Among the former was the uncle; but his two nephews were presented to the King, who took particular notice of them, and they were afterward raised by him to the first dignities of the state. They obtained leave to revisit their native country, when FRUMENTIUS was ordained a bishop, and in that character went back to *India*. At the council of *Nice*, in the year 325, the *Primate of India* was present, and subscribed his name. In the year following, FRUMENTIUS was consecrated *Primate* of *India*, by ATHANASIUS, at *Alexandria*. He resided in the *Peninsula*, and the *Christians* there had always a bishop, called the *Primate* of *India*. The *Christian* religion made also some progress in the north of *India*. MUSÆUS, bishop of *Aduli*, on the *Abyssinian* shores, visited the northern parts of *India* in the latter end of the fourth century, in company with the famous PALLADIUS, a Goth from *Galatia*. When they arrived on the borders of *India*, they were both disgusted with the climate. PALLADIUS went back, but MUSÆUS proceeded to the lesser *Boc'hara*; where, it seems, he was more successful. Yet there was at *Sirhind*, or *Serinda*, a seminary for *Christians*, in the sixth century: for, in

the year 636, two Monks, who had long resided there, returned to their native country; and being at *Constantinople*, the Emperor JUSTINIAN sent for them, to inquire into the nature and origin of silk, and he prevailed upon them to go back to *Sirhind*, in order to bring from thence the eggs of the real silk butterfly.

THEOPHILUS, the famous *Arian* bishop,* was a native of *Divus*, now *Diu* in *Gujrât*; and, as he was remarkably black, he was sirnamed the Blackamoor. His *Hindu* name was probably DEO-PA'L, perfectly synonymous with THEOPHILUS in *Greek*. He flourished in the times of the great CONSTANTINE, and of his sons; and he had been sent to *Constantinople* with others as hostages. From this circumstance it appears, that the inhabitants of *Gujrât*, who have been always famous as pirates, had ill used the *Roman* traders. There was a great trade carried on at that time to *India*, by the *Romans*; and there was an annual fair held at *Batné*, for the vent of *Indian* and *Chinese* commodities, and there was a great concourse of merchants, many of whom were settled there. It was situated at some distance from the eastern bank of the *Euphrates*, and nearly in the same latitude with *Antioch*. He was very young when he was sent to *Constantinople*, where he studied, became a *Christian*, and embraced a monastic life. He was afterwards ordained a bishop, and sent to *Arabia* by CONSTANTIUS, in order to promote the interests of the *Christian* religion. He met with great opposition from the *Jews*,

* See Philistorgius, Sozomenes, &c.

who were very numerous in that country; but succeeded at last, and built three churches, for the benefit chiefly of the *Roman* traders. One was at *Taphar* or *Tapharon*, now *Dafar*, and the metropolis of that country; the second was at *Aden*, near the straits of *Babelmandel*, and the third near the entrance of the *Persian Gulf*. From thence he went by sea to *Diu*, his native country, visited several parts of *India*, comforting the *Christians*, introducing wholesome regulations, and spreading the errors of ARIUS. He thence returned to *Antioch*, according to SUIDAS, where he lived a long time, highly respected. He accompanied afterwards CONSTANTIUS GALLUS into *Germany*, as far as *Petavium*, now *Pettaw* in *Stiria*, in the year 354.

MARUTHA, a *Hindu*, and a bishop of *Suphara*, now *Sufferdam*, assisted at the *Synod* of *Sides*, in *Pamphylia*, in the year 383. He was afterward translated to the bishoprick of *Meyaferkin*, on the borders of *Mesopotamia*, when YEZDEJIRD I., King of *Persia*, charmed with his piety, was very near becoming a *Christian;* and CHRYSOSTOM speaks highly in favour* of our bishop. According to the *Notitia* of NILUS DOXOPATRIUS, the *Greek* Patriarch of *Antioch*, ordained a certain RAMOGYRIS Metropolitan of *India;* and, from his name, there is every reason to believe that he was also a native of *India*, where the appellation of RA'MA-GIR is by no means uncommon. COSMAS INDICO-PLEUSTES, who visited *India* about the year 522, says, that there were churches and priests, with the whole liturgy, in *Ceylon:* also on

* Photii Biblioth. p. 38, &c.

the *Malabar Coast*, and in the north west of *India*. In these countries, says he, there are a vast number of churches.'

The Mission of St. THOMAS to *India*, with the surprising progress of the *Christian* religion, are facts, in my humble opinion, sufficiently authenticated. JEROME, who died in the year 420, speaks of the Mission of St. THOMAS to *India*, as a fact universally acknowledged in his time: but I must refer the sceptic reader to the works of FABRICIUS, and ASSEMANNI, unfortunately not to be procured in this country. But the learned history of the *Anglo-Saxons* by Mr. TURNER will abundantly make up for this deficiency, in his dissertation on the embassy of the bishop of *Shireburn*, sent by the great ALFRED, to the tomb of St. THOMAS in *India*. That the holy Apostle suffered martyrdom in *India*, is sufficiently proved: but, at the same time, it is certain also, that his body was afterwards carried back, and deposited at *Edessa*, as attested by RUFINUS, who went to *Syria* in the year 371, and remained there twenty-five years. The place, however, where he was first entombed, became a famous place of pilgrimage, where probably, they kept some particles of his body, either true or false; but the chief relic was his blood; which had impregnated the spot, where he suffered martyrdom. This earth was carried, in small quantities, all over the *Peninsula*; and, being drunk with water, proved most efficacious in all sorts of diseases, and complaints. His tomb at *Edessa* was probably destroyed, during the wars of the Emperors of the west with the *Persians*; or afterwards by the *Muselmans*.

In the sixth century, GREGORY of *Tours*, the father of French history, became acquainted with a

respectable man, called THEODORUS, who had visited the tomb of St. THOMAS in *India*. In the ninth century, SIGHELM bishop of *Shireburn* was sent there also by ALFRED, in consequence of a vow. Now, these two clergymen were too orthodox to worship the tombs and relics of an heretic, a Nestorian of the name of THOMAS, as has been supposed by many; and they were too near the time, in which he lived, to have been imposed upon. The two *Muselmans*, who visited that place soon after SIGHELM, mention the church of THOMAS, on the *Coast* of *Coromandel*, as well as MARCO POLO about the year 1292, long before the *Portugueze* had found their way to *India*. M. POLO says, that *Christians* and *Muselmans* were very numerous in the *Peninsula*.

The place where he suffered martyrdom, that is to say, the country about *Madras*, was seldom visited by merchants, as there was no trade. His body, or tomb at least, was in a small city of that country, and the native *Muselmans*, and *Christians*, held it in great veneration. Pilgrims, from distant countries, came to visit this holy place; and the earth impregnated with his blood, was given in some beverage, to sick and infirm people; and miracles were often performed there. In speaking of *Aden* in *Arabia*, he informs us, that "St. THOMAS was said to have preached there, before he went to *Maabar* in *India*, where he suffered for CHRIST, and there reposes to this day his most holy body. In that country (*Maabar*) the *Christians* are good soldiers, and remarkable for their honesty."

The inhabitants say, that the holy Apostle was a great prophet, and they call him AVARIIA, which in their language signifies *a holy and pious man*. As

MARCO POLO has given us the meaning of the word *Avária*, it is very easy to reascend to its pure and original form, which is *Av-'Aryya* in *Sanscrit*; and, as he says, that the *Christians* there were highly respected, being good soldiers, and above all, good and holy men, remarkable for their integrity, they were certainly *Av-'Aryyas*, or *'Aryyas*, as well as their holy Apostle. The word *Avariia* is derived from the *Sanscrit* compound *Av-'Aryya*, from two words perfectly synonymous, *Ava*, and *Aryya*. The first is rendered in lexicons, by *'Sudd'ha*, or *Pavitra*, equally implying holiness, and purity. It is often used in composition, where it enhances the sense. One of the titles of BUDD'HA is AVA-LÓCITA, or AVA-LÓCANA'T'H, the holy sovereign of the world: AVA-RÓHA or A-RÓHA, well seated. This word is very often pronounced ABA, and more particularly so, in the S. W. parts of *India*: and the same M. POLO mentions in the country of *Laé*, a race of most pious men called *Abraiani* and *Abrāiam* in the M. S. S. But the editors thought proper to write that word, *Abrājamim*; because they conceived that they were *Bráhmens*. But it is much more probable, that it is the same word with *Avariiam*, or *Avariia*, which he mentioned before. *Ab-Aryya* in the objective case, in the singular number, makes *Ab-'Aryyam*, and *Ab-'Aryyán* in the plural, in the first case. These *Abraiani*, says he, have in abhorrence lying, theft, and cheating. They marry but one wife, and abstain from intoxicating liquors, and flesh. They eat moderately, and their fasts are long, and most severe: otherwise, says he, they are idolaters. He then mentions other idolaters in that country; but from the context, entirely different from the *Ab-'Aryyas*: who it seems, were only degenerated *Christians*, who

had in great measure relapsed into the errors of their ancestors, and of their contemporaries.

From the situation, assigned to the country of *Laé*, by M. Polo, these good people, with the most austere manners, called *'Aryyas*, seem to be the same with the holy and rigid penitents, and anchorets mentioned in the third century by Ptolemy in the country of *Ariáca*, a derivative form from *'Aryya*, under the name of *Tabassi Magi*, from the *Sanscrit Tapáswi*, pronounced *Tabásá* in the *Tamuli Dialect;* and which signifies contemplators, and by implication men performing austere penances, like the anchorets in the wilds of *Thebes*, and *Tabenna* in *Egypt;* which denominations are probably derived from *Tapa*, austerities, and *Tapó-van*, the wilderness of austerities. The *'Aryyas* are mentioned in the *Brahmán'da-purána** as a powerful tribe of foreigners *(Mléch'ha)* living among the mountains of the *Dekhin.*

Ptolemy says, that *Ariaca* belonged to the *Sadixoi*, a strange name certainly for a tribe. I suspect however, that it is derived from the *Sanscrit Sád'haña*, and that the *'Aryyas* were thus denominated by the native *Hindus*, in the same manner, that the *Portugueze* were styled is *Bengal*, *T'hac'hurs*, rulers or lords, and the *English* all over *India* are called *Sáhebl'ócas*, or *Sahéb-lógues*, and the most apposite *Sanscrit* expression for the above epithets is *Sádhana:* the *English* are often styled by learned *Pandits*, *Sádhana-Engriz:* and the famous Bhója is often called *Sádhana Bhója.* M. Polo mentions also *Abraians* on the

* Section of the Earth.

Pearl-Fishery Coast; these were consulted by the fishermen; but, he says that they were bad men, and great sorcerers: and their descendants, to this day, are not much better. According to the acts of St. THOMAS, and other notices, the holy Apostle embarked at *Aden* in *Arabia*, in his way to *India*, where he landed at a place called *Halabor*, and afterwards *Salo-patan*, synonymous with *Sálo-pur*, or *Sála-buram*, *Hála-buram;* and now *Cranganor*. He was well received by MASDEUS, called also SEGAMUS, King of that country, whose son ZUZAN he converted, and afterwards ordained him a Deacon. The Apostle, long after, suffered martyrdom, at a place called *Calamina*, known afterwards by the name of *Maliar-pur*, or the city of *Pea-cocks*, from the *Sánscrit Meyúr-pura;* and the same which is called *Maliar-pha* by PTOLEMY. Its present name is St. THOME, called by the *Arabs*, during the middle ages, *Betuma*, or *Beit-Thoma*, the house or church of THOMAS.

MASDEUS, the name of the King, who kindly received ST. THOMAS, ZUZAN that of his son, and SEGAMUS his own surname, are all *Hindí* denominations. MUSDEUS is for BASDEO, the usual pronunciation of VA'SU-DE'VA in the spoken dialects. SEGAMUS is for SUGAMA, synonymous with SUGAT, and shews that he was a follower of BUDD'HA: and SANGAMA, even now, is not an uncommon name in *India*, particularly in the *Peninsula*. ZUZAN is for SAJANA, or SEZAN, as written by Father GIORGI. It is the name of the father of BUDD'HA, called also AJANA, by the *Puránics;* and the disciple and successor of MANES, who pretended to be an incarnation of BUDD'HA, was called SISINIUS.

The place of his martyrdom is called *Calamina* by HIPPOLYTUS, according to Mr. TURNER. *Calamina* is a *Tamuli* denomination, and literally signifies *earth*, and *stones*, alluding to the nature of the soil. It is synonymous with *Mana-para*, which signifies the same thing, according to F. BARTOLEMEO, a missionary acquainted with both the *Sanscrit* and *Tamuli* languages; but I by no means conceive them to be the same place. *Cálá* or *Cálu* in *Tamuli* signifies a stone, or *Callou* in *French*, and *Mána* earth. Thus, point *Calymere*, the true name of which is *Cálá-me'du*, signifies the stony hill. There were two bishops of the name of HIPPOLYTUS, one of whom resided in *Arabia*, and they were contemporaries. The latter probably wrote the treatise concerning the peregrinations of the Apostles, and died, A. D. 230.* DOROTHEUS, another bishop, born in the year 254, wrote also on the same subject; and some fragments of his work are to be found at the end of the *Chronicon Paschale*. There he asserts, that St. THOMAS died at *Calamita (Cálá-me'du,)* which is synonymous with *Calamina*, or nearly so.

Some *Manicheans*, at a very early period, went to the *Malabar Coast:* for, according to LA CROZE, in his history of *Christianism* in *India*, the *Christians* of that country said, that, before they had submitted to the jurisdiction of the *Catholicos*, or *Nestorian Patriarch*, and of course, before the arrival of MAR-THOME', there came into their country a certain MANNACAVASSAR, who preached a new doctrine, seduced the people by his prestiges, and introduced his errors. LA CROZE did not understand the mean-

* Series Patrum, p. 62.

ing of the word MANNACAVASSAR; but suspected that he was a *Manichean.* He was called, by the people of the *Dekhin,* MANI-CAVISSAR, which signifies the bard, the prophet MANI. CAVISSAR is derived from the *Sanscrit* CAVI, poetry, songs, and *Is'wara,* lord, chief: CAVIS'AR, for CAVYES'WARA, signifies the lord of the song, or the chief bard, and is used in that sense in the *Peninsula,* according to Major MACKENZIE.

The two *Muselman* travellers in the ninth century, and the *Nubian* Geographer, probably on their authority, declare, that there were many *Christians, Manicheans, Jews,* and *Muselmans* in *Ceylon:* and that the King encouraged their public meetings, and that the learned *Hindus* of that country used to frequent them; *and that the King kept secretaries to write down their respective histories, and the exposition of their doctrines and laws.* These two travellers were in *Ceylon,* at that time; and these meetings, as well as the places at which they were held, are called *Charchita* by the *Purán'ics,* and appointed for the purpose of making *Charchá,* search or investigation, into new dogmas, and opinions, which began to disturb the peace of the country.

The *Muhamedans* in *India* acknowledge the early establishment of the *Christians* in that country. FERISHTA, in his general history of *Hindostan,* says: "Formerly, before the rise of the religion of *Islam,* a company of *Jews* and *Christians* came by sea into the country *(Malabar)* and settled as merchants or *Pishcáras.* They continued to live there until the rise of the *Muselman* religion."*

* Asiat. Reg. Miscell. p. 151.

III. The decline of the *Christian* religion in *India*, must be attributed, in a great measure, to the progress, equally rapid and astonishing, of *Islamism*, in *Syria*, *Persia*, *Egypt* and *Arabia*. The *Christians* in these countries, being in a state of distraction, no longer sent pastors to *India*; as we are informed in a letter written in the seventh century, and still extant, according to Mr. TURNER. There we see the *Nestorian Patriarch* JESUJABUS of *Abiabene*, reproaching the *Metropolitan* of *Persia*, with having shut the doors of the episcopal imposition of hands, before many people of *India:* that the sacerdotal succession had been interrupted, from the maritime borders of *Persia*, down to *Colon*, or *Coilan*, a space of above 1200 *Farsangs*. This agrees with what is related by *Muselman* writers, who say, that in the reign of the CALIPH ABDULMALEC, in the latter end of the seventh century, the *Christians* of *India* sent to SIMON, the *Syrian* and *Jacobite Patriarch* of *Alexandria*, requesting that he would send them a bishop.*

The bulk of the *Christians* of *St. Thomé*, according to Mr. WREDE, like the *Aryyas*, consisted of converts from the higher classes; and they were nearly upon the same footing with the *Bráhmens*, and *Nairs* or nobles. They were originally much respected by the *Hindus*, and native princes; and they considered themselves equal in rank with the *Bráhmens* and *Nairs*, and claimed the same exemptions and privileges, which were granted to them. Many amongst them, preserve till now the manners, and mode of life of the *Bráhmens*, as to personal cleanliness, and abstaining from animal food: and the *Roman* missiona-

* See D'HERBELOT's Biblioth. Orient. v. Hend. u. Sind p. 415.

ries, in general, adopt the same regimen, in order to gain credit among them.

These *Christians* were then very properly denominated *'Aryyas* and *Tacshacas*, or *Peishcára Bráhmens*. These and their Kings probably introduced the *Christian Era* into their country: but, in the same manner, that their sanctity, and their power in *India* are foretold in the *Puráńas*, their fall is equally mentioned. When, says the compiler of the *Váyu-Puráńa*, their time is come, the *'Aryyas* will pass away, like the rest.

These good *'Aryyas* are called *'Sálwas*, *'Sálavas* and *'Sályas* in the *Cumáricá-c'hańda*. These three forms are regular, but the last, according to Mr. JOINVILLE, prevails in the *Dekhin*, and *Ceylon*; where they are called *'Sálé*, *'Sályas*, and *Chállyas*, because, I suppose, they were the followers of SA'LA. They are called also in that country, *'Saca-Rájà-vánsas*, and *Sála-vánsas* in the western parts of *India*. They are now followers of BUDD'HA; and in the *Peninsula* the *Christians* are included in the general denomination of *Bauddhists*, and their divine legislator is considered as a form of BUDD'HA.

The chief of the *Sályas*, or *'Aryyas*, is called *'Aryya-'sira* by the followers of BUDD'HA, a *Sanscrit* compound implying as much. He was overthrown by BUDD'HA, and yet he is called *Pra-'Aryya-'sira*, or *Pra-Aria-seria*, the venerable *Sire*, or chief of the *'Aryyas*.

The *Manicheans*, and the *Muselmans*, on the authority of the Apocryphal Gospel of the childhood of CHRIST, and that of St. BARNABAS, of which

they have copies in *Arabic*, *Persian*, and even in the western languages of *Africa*, represent CHRIST, as the most complete *Tacshaca*, that ever existed. He was not only an excellent carpenter and statuary; but he was deeply skilled in the combination of all sorts of colours. For this reason, the ingenious H. SYKE, who has given us a translation of the Gospel of CHRIST's childhood, from the *Arabic*, and some fragments of the original in *Greek*, says, that dyers in *Persia*, consider CHRIST as their *patron*. It seems indeed, that the greatest part of the *Christians*, in *Arabia* and *Persia*, were handicraftmen: and that they were accordingly called *Peishe-cáras*, both because they were really so, and because they were the followers of the great *Tacshaca* or *Peishe-cára*. According to D'HERBELOT, the disciples of CHRIST were called in *Persian* and *Arabic*, *Kassarins* or *Kassáruns*, and *Haváryuns*, that is to say, fullers and bleachers: and the priests of the *Christians* of St. THOMAS are called *Kassanars* to this day, perhaps for *Kassáruns*.

Mr. JOINVILLE, in his account of *Ceylon*,* mentiofis the arrival of numerous families of these *Peishe-cáras*, *Peish-cárs*, into that island; and declares, that they were all artificers, and handicraftmen, as implied by their name, which is truly of *Persian* origin; though used all over *India*, in the northern parts of which, it is generally pronounced *Peishe-Ráz*. According to T. HYDE, the *Pársis* in *India*, are all artificers, and those in *Kirman* deal chiefly in woollens.

There were formerly *Brâhmens* in *India*, says the

* As. Res. vol. vii. p. 433, 443.

same gentleman, who were handicraftmen, such as weavers, weaving stuffs variegated with gold and silver, and of divers colours. These were called, from that circumstance, *Peish-cári-Bráhmens*. But they could not be followers of BRAHMA; for the employments of weavers, and dyers, are absolutely incompatible with the sacerdotal class: in extreme distress a *Bráhmen* may sell stuffs, but even then, under very peculiar restrictions. They might however have called themselves *Bráhmens*, at least their priests, without any impropriety; for every priest is really a *Bráhmen* in his own religion. A few individuals might have become weavers; but then, they would lose their cast, and it is impossible that a numerous body of *Bráhmens* should follow that profession. It is then much more probable, that they were not, strictly speaking, *Bráhmens* of *Hindu* extraction; but the followers of a new religion, introduced by foreigners, the disciples of a *Peish-cára*, and themselves *Peish-cáras*, or at least many of them.

Their first arrival in *Ceylon*, happened nearly about 1845, after the famous war between RA'MA and RA'VANA, called the *Rávana-Yudd'ha*. RA'MA lived thirteen generations before the *Cali-yuga*; answering to about 400 years; and the *Cali-yuga* began 1370 years before CHRIST. The completion of the 1845 years will then fall about 77 years after CHRIST. VIJAYA, according to Captain MAHONY, was the first King of *Ceylon*, after this period of 1845; during which, the island was desolate, and overrun by *Demons*. Then, says the same gentleman, the *Christian* natives insist, that this King VIJAYA was crowned 77 years after the birth of our Saviour. This King VIJAYA was not a *Bauddhist*: for the ninth King after him was the first who embraced

that religion; and his name was DEVENI-PATI. All the missionaries to *China*, were really *Tacshacas*, or *Peish-cára-Bráhmens*, in the strictest sense of the word, as well as the pious *Moravians*: and PAUL the Apostle was a *Tacshaca*, and a *Peish-cára-Bráhmen*: and, by the account of Mr. WREDE in his narrative of the *Christians* of *St. Thomé*, they were formerly *Peish-cáras*: for, says he, they were in fact the only, or at least, the principal merchants in the country, till the arrival of the *Arabs*.

The ingenious Mr. JOINVILLE, on the authority of several treatises in the *Magad'hí* language, the names of which he mentions, says, that there were even Kings among these *Peish-cára-Bráhmens*, in the *Peninsula*, to the number thirty-five:* from the context, it appears, that some were in a collateral, and others in a successive line. The names of their kingdoms, or rather their *Metropolitan Cities*, were *Solo-patan*; *Mahá-patan* (now *Patan*, the *Baitana* of PTOLEMY in the *Dekhin*, on the banks of the *Gódáveri*, to the southward of *Dowletabad*); *Curu* (now *Cauri*, or *Coir*); *Gadaharé* (*Gauda*); *Mácanda*, (now *Mahácunda-pilli*); and *Cási*. This is confirmed in the *Bhágavat*, *Váyu*, and *Brahmándá-puránas*, in which it is declared† that *Aryyá*, or *Saca*, and *Sálava* was the name of a dynasty of Kings in *India*; and who were to be immediately followed by the invasion of numerous swarms of other foreign tribes; and of the dynasty of these *Sacas*, there were five and twenty Kings, according to the *Puránas* in the chapters on futurity.

Solo-pátan was a sea-port town, according to Cos-

* As. Res. vol. vii. p. 443. † In the Sections on Futurity.

MAS INDOPLEUSTES, about the middle of the sixth century, on the *Pepper* or *Malabar Coast*. There were, says he, five sea-ports famous for trade, *Parti*, *Mangarouth*, *Salou-patna*, *Nalo-patana*, and *Poudu-patana*; and all these names are truly *Indian*. There are several places in the *Peninsula*, called *Parti-guddy*, or fort of *Parti*. *Mangarouth* seems to be *Mangalore*, and *Nalo-patana*, *Nali-suram*; *Salou-patana* is called *Sooloo-patonow* by the people of *Ceylon*, and had Kings of its own of the *Peishe-cáré-Bráhmen* tribe, or *Christians*.

Sálo-patan, otherwise *Sálo-buram*, and *Sálo-pur*, is the same with *Hála-bor* where St. THOMAS landed, and its present name is *Cranganore*. There he converted SAJANA son of the King of that country.

We read in the history of the *Christians* of St. THOMAS, that they had *Christian* Kings of ther own; the first of whom, was called BALIARTE, from the *Sanscrit Bali-arhat*. After several successions, one of these *Christian* Kings dying without male issue, adopted the King of *Diamper* for his son, according to the custom of the country, though he was a heathen, and appointed him his successor.

That a society of *Peishé-cáras*, *weavers*, and *handicraftmen*, however numerous, should have Kings of their own, is inadmissible; unless they were upon such a footing, as the *Christians* were formerly in the *Peninsula*. St. THOMAS converted the son of the King of some country on the coast of *Malabar*; and the *Puránas* declare, that there was a dynasty of *Aryya* Kings.

The name of *Avâryya* is not totally unknown in

the *Peninsula:* they have still in great veneration, a certain Sibyl of divine origin, most pious, and good, called AVVA'R; and who lived in the ninth century. A translation of some of her moral sentences, is inserted in the seventh vol. of the Asiatic Researches. It seems she was conversant with the *Christians* of that country, for among her proverbs, there are some, that are far from being in the usual style of the *Hindus.*

The descendants, or followers, of SA'LAVA'HANA are mentioned in the commentary upon the *Calpadruma.* In religious matters, and particularly in the east, they generally call the followers of any reformer, or legislator, his descendants. In the above commentary SA'LAVA'HANA is declared to be a *Jaina,* meaning, either a follower, or a form of JINA. He is called there also, a *'Srávaca,* or *'Sávaca*; that is to say a *Peish-cára.* In the western parts of *India,* as in *Gurjar'át,* they call all tradesmen, banyans, &c. *'Sávacas,* or *'Sábacas.* The famous CALICA'CHA'RYA is supposed to have visited SA'LAVA'HANA, at *Pratishtána* in the *Dekhin;* and, according to the above commentary, he was born 993 years after the ascension of JINA, or 43 years B. C. He travelled all over the *Peninsula,* teaching, and explaining the doctrine of JINA; and particularly among the *'Sábacas.* He is supposed to have taught SA'LAVA'HANA some peculiar rites, to be observed at the full, and new moon; which, he promised, he would enjoin his descendants, or followers to observe. The posterity of a *'Sábaca,* or *Peish-cára,* particularly in *India,* were necessarily *Peish-cáras,* and *'Sábacas.* A patronymic denomination was also given to them; for they are called *'Sálwas, 'Sálavas,* and *'Sálbas* in the *Cumárica-c'han'da,* answering to the *Arabic* expression, of *Ashab-al-Sálib,*

or *Salb*, the followers of the cross, or of him, who was crucified. According to A. ROGER, there is still in the *Dekhin* a considerable tribe of men called *Sálavádis*, from the *Sanscrit* *Sálavádicas*, the *Sálavas* or followers of SA'LA.

In the *Váyu-puráńa*, they are called *Sacas*, and in that passage, this name is used in the room of *Aryyá* to be found in other *Puráńas*; and it is declared there, that they would appear with the *And'hras* and *Pulindas*; the dynasty of the first began in the year 191 after CHRIST: and it is obvious from the context, that the dynasty of the *Sacas*, *Aryyás*, or *Sálvas* was contemporary with those of the *And'hras*, and *Pulindas*; though we cannot fix precisely the time when it began. By *Pulindas*, they understand dynasties of Kings from the lowest and vilest classes in *India*.

The descendants, or followers of King SACA, are called by Mr. JOINVILLE, and Captain MAHONY, *Saca-Rájá-Vánsas*, a true *Sanscrit* expression, implying as much: and we have seen, that there are still in the *Dekhin*, and *Ceylon*, some families or tribes so called to this day. I was greatly surprised, sometime ago, to hear from most respectable *Pandits*, that there was in the district of *Benares*, and in the province of *Oude*, a tribe of *Rájaputras*, who boasted of their descent from SA'LAVA'HANA; and that the chief of that tribe was considered as a living hereditary deity, and a form of VISHNU, like their Sire SA'LAVA'HANA. What is still more surprising, is, that this chief does what he can to conceal his divinity, and to make people believe, that it is not so. But in despite of his endeavours, some peculiar circumstances will occasionally betray him; and such an instance, it is said, happened last century. They are descended

more probably from the followers of another SA'LAVA'HANA, a *Manichean*, or MANES himself, as I observed before.

As these *Rajaputs* call themselves *Vaiśyas*, synonymous with *Srávaca* or tradesman, it seems, that they originally followed that profession. Probably some will say, that if the *Saca-Rája-Cumáras*, had been once *Christians*, they must of course have lost their cast. This might be the case now; but, I do not believe it was so formerly; and then, the *Puráńas* afford us immediate remedy, for in the chapters on futurity, it is declared, that the Kings of *Magad'ha* would raise men of the lowest classes to the rank of *Bráhmens*, and other superior casts; exactly like JEROBOAM, and other Kings of *Israel*. This prophecy was to take place, after the fall of the *And'hra* dynasty in the seventh century.*

Besides, a whole district, a whole tribe, might embrace another religion, without losing cast; the full exercise of its privileges being always confined to themselves. For we must not think, that persons of the same cast, will communicate one with another all over *India*, and eat together, or of food dressed by another. The communication is confined to a few families in their neighbourhood, whom they know to be strict observers of the rules relative to their cast. The rest of the tribe are in a great measure outcasts to them. This almost incredible adherence to the punctilio of casts, was in a great measure owing probably to the rapid increase of the religion of BUDD'HA, then afterwards of that of CHRIST, and

* See Brahmán'da and Váyu-puráń'as. Section on Futurity.

MUHAMED, and of the heresy of MANES, in the N. W. parts of *India*, and also on the coast of *Malabar*, and *Ceylon*. Among the *Christians* in the *Peninsula*, be they *Protestants*, *Roman Catholics*, or *Nestorians*, there are *Bráhmens*, who are nearly upon the same footing with the other *Bráhmens:* and, when acquainted with them, such civilities, as are usual among well bred people, are never omitted. The *Christian Bráhmens* most rigorously abstain from beef, and animal food, though they say they can eat of it. The greatest part of the *Bráhmens* in *Persia*, *Turan*, and near *Baku*, eat beef, but never of the flesh of the cow, like many of the *Egyptians* of old. There are several of these *Bráhmens* settled at *Benares;* and they are acknowledged as such, though not much respected, being nick-named *Véda brashtas*, or breakers of the *Védas;* for a *Bráhmen* may be a heretic without losing his cast, which is not so much connected with his creed as might be supposed. In short, the *Hindus* acknowledge themselves, and it appears from their sacred books, that they ate beef formerly; but they took care to inform me, at the same time, that they never ate of the flesh of the cow. It is declared, that there are no *Cshettris* now, or in other words, that the second class no longer exists. Yet those, who have been raised to that rank from the lowest classes, are treated as such by every *Bráhmen.*

We read in the institutes of MENU, that all the *C'hasyas*, or those who inhabit the snowy mountains, have lost their cast. Yet they must have recovered it; for there are numerous families of *Bráhmens* in those countries, particularly in *Almorah* or *Cománh*, and much respected at *Benares*, who by no means consider the bulk of the inhabitants, who are *C'hasyas*,

as outcasts. They assured me on the contrary, that they considered them as belonging to the second class, and that they are treated as such by every *Bráhmen*, in despite of MENU and of the *Puránicas*.

Let us suppose some extensive district in *India* solely inhabited by *Europeans*, and that these were entirely willing to conform, in every thing, to the religion of BRAHMA, and the manners of the *Hindus*. Their resolution would be highly approved of by every *Bráhmen;* and they would soon find many to officiate, and pray for them, on their being of course paid for their trouble. Let us add to this, numerous grants of land, villages, honours, privileges, and an entire submission to their will, they would soon treat them as *Cshettris*, as they do the present *Rájputs*. It is true, they could neither intermarry, nor eat with the other *Hindus*, but the four great classes never intermarry, nor eat, but with particular families of the same tribe in their own class. After a few generations, they would say of these *Europeans*, what they say of the present *Rájputs* and *Máhráttas*, that they were not originally *Cshettris* nor *Bráhmens*, and are a spurious race. This would not do, it is true, for a single individual, who would find himself insulated, and lost entirely, unless he assumed the character of an anchoret or penitent. I had long conversations with learned *Pandits*, on the subject, and this was their opinion, and that even they might have *Bráhmens* of their own, by studying their sacred books, and obtaining the necessary knowledge, which would not be attended with much difficulty. With regard to their ancestors having ate beef, this could be no objection, as there is not a *Hindu*, whose ancestors, at some remote period, it is true, did not eat beef, and every sort of animal food, except

perhaps a few unclean sorts. Whatever man, say the learned, performs the duties *(Carma)* of a *Cshettri*, him you must consider as a *Cshettri*. But what should put an end to the controversy, at least in my humble opinion, is that the *Máhráttas*, a numerous and respectable tribe of *Bráhmens*, and *Cshettris*, are acknowledged, all over *India*, to be foreigners from the western parts of *Persia*, who left their native country not 1200 years ago, as I shall shew in the appendix. Even though this alleged origin of the *Máhráttas* should prove untrue, yet the universal acknowledgment of it is very much in favour of my assertion.

The followers of BRAHMA', and those of BUDD'HA, were by no means indifferent to the progress of foreign creeds. They often ordered conferences to be held, where the principles of these religions were inquired into, the history of their legislators, &c. This was practised in *Ceylon* in the ninth century, according to RENAUDOT's two *Muselman* travellers; and *Bráhmens* unanimously acknowledge, that this was their practice formerly, with regard to the *Baudd'hists;* and that these conferences were called *Charchá*, or investigation, search, *Cherche* in *French;* and that towns appointed for that purpose, were called *Charchita-nagari*, one of which is mentioned in the *Cumáricá-c'handa*. "*In the year* 3291 *of the Cali-yuga* (or 191 after CHRIST) *King* SUDRACA *will reign in the town of* CHA'RCHITA NAGARA, and destroy the *workers of iniquity.*" This points out a persecution in religious matters, at a very early period. These conferences ended in bloodshed, and the most cruel and rancorous persecution of the followers of BUDD'HA, even from the confession of the *Bráhmens* themselves. They were tied hand and foot, and

thus thrown into rivers, lakes, ponds, and sometimes whole strings of them. Be this as it may, the followers of BUDD'HA did not fail to retaliate whenever it was in their power; for Dr. F. BUCHANAN informs me, that in the *Dekhin* the *Jainas* make their boast of the cruelties that they exercised at different times upon the *Bráhmens*, and that there are even inscriptions still extant in which they are recorded. This general persecution was begun by a *Bráhmen* called CUMA'RILLA-BHATTA'CHA'RYA, and carried on afterwards by SANCARA'CHA'RYA, who nearly extirpated the whole race. It is difficult to say when this took place; but as there were vast numbers of *Baudd'hists* in the *Peninsula*, in the *Gangetic Provinces*, and *Gujarát*, in the ninth, tenth, and eleventh centuries, this general proscription could not of course have taken place at these periods. It is very probable that the *Christians* were occasionally involved in these persecutions, as the *Christians* of St. THOMAS are considered as *Baudd'hists* in the *Dekhin*, and either their divine legislator, or his apostle THOMAS, is asserted to be a form of BUDD'HA.

The *Hindus*, and more particularly the followers of BUDD'HA and JINA, fancy, that there are hidden mysteries in certain numbers. It was so formerly in the west, among the heathens, the *Jews*, and the *Christians*. All over the world, the numbers *one* and *three* were considered as radical; and their combination was subject to whimsical rules. They are by no means to be added together, for *one* and *three*, in a mystical sense, are but *one* and the same thing. We might suppose, that the square, and cube of *three* would be sacred numbers; but it is by no means the case. *Eight* is the mystical number, and

three times *eight*, or *twenty-four*, is a sacred number; and being multiplied by *three*, the product is mystical also, and the number of years of JINA's life. The reason is, that *one* stands in the centre representing JINA, who is *three* and *one*. *Eight* forms sprang from this toward the *eight* corners of the world, and each of these is *three* and *one*: but we cannot say, that these *eight* forms, with the original *one* in the center, make either *nine*, or *twenty-seven*; for though each collateral form is perfectly distinct from each other, yet it is individually the same with the original one. Sectaries, at an early period entertained accordingly strange notions concerning the number of years that CHRIST lived concealed, performed the duties of his ministry, and lastly about the length of his life. They conceived that every circumstance relating to so exalted a character, was mysterious. Some insisted that he lived *thirty*, *thirty-three*, *forty*, and others nearly, but not quite *fifty* years. STEPHANUS GOBARUS has collected many of these idle notions, in the extracts made of his works by PHOTIUS.

IT is not obvious at first, why SA'LIVA'HANA is made to have lived eighty-four years; but it appears to me, that this number was in some measure a sacred period among the first *Christians*, and also the *Jews*, and introduced in order to regulate Easter-day; and it is the opinion of the learned, that it began five years before the *Christian Era*, and the *fifth* year of that cycle was really the *fifth* of CHRIST, but the first only of his manifestation to the world, according to the Apocryphal Gospels; and it was also the first of the *Christian Era*. In this manner the cycle of eighty-four years ended on the 79th of the *Christian*, which was the first of SA'LIVA'-

HANA's *Era*, and was probably mistaken for the period of his life. It is mentioned by St. EPIPHANIUS, who lived about the middle of the fourth century.*

IV. The followers of BUDD'HA, in *Siam* and the *Burman Empire*, mention the wars of their legislator with DE'VÉ-TA'T, who, they say, is the legislator of the *Christians*. He is the same who is called a *Tacshaca* also by the *Hindus*, and who manifested himself in the first year of the *Christian Era*. They say that he was either a brother, or a relation of BUDD'HA; or in other words, he was a collateral form of BUDD'HA. They acknowledge some conformity between his doctrine and theirs; because, as they say, his disciples borrowed many things from BUDD'HA. He allowed them, however, to kill and eat all sorts of animals, and seduced very many of the disciples of BUDD'HA; and, aspiring to sovereignty, he waged war against SAMAN'A-GAUTAMA. He appeared at the head of a new sect, and engaged several kings and nations to join him. He had the gift of miracles, and asserted that he was a god. DE'VE-TAT being several times worsted in this war, made overtures of peace, and SAMAN'A-GAUTAMA consented, on condition that he would subscribe to three articles which he was going to propose. These were to worship, first, God; then his word; and thirdly, the person who imitates divine perfection, or, in other words, to worship BUDD'HA. This last article was rejected by DE'VE-TA'T or his disciples, and they went to war again; when DE'VE-TA'T was defeated in the forest of *Sálatúyah* in the *Peninsula*.† He was taken pri-

* See BASNAGE'S History of the Jews, page 436. English translation.

† This is noticed also in the As. Res. vol. vi. p. 269.

soner, and empaled alive, with his limbs trussed up, upon a double cross; and in that state hurled into the infernal regions. SAMAN'A-GAUTAMA, however, foretold, that in the end he would really become a god. BUDD'HA, or GAUTAMA is also represented waging war with PRA-'ARIA-SERIA, for PRA-'ARYYA'-'SIRA, the venerable chief, or Sire of the *'Aryyás* or *Christians;* and another chief of them, called PRA-SWANE, or PRA-'SWANA, from his loudly preaching against the doctrine of GAUTAMA. BUDD'HA and DE'VA-TWASHT'A' are made contemporaries in this romance: but this can be no objection; for it is only in allusion to the wars of their followers in subsequent times. The learned are very well acquainted, that this mode of writing history once prevailed in the west at a very early period.

The beginning of the seventh century is remarkable for the introduction of new eras among the civilized nations of the world. The *Christian Era* was introduced at *Constantinople* in the year 526; but, as the learned observe, it was a hundred years before it was generally adopted, and this was in the beginning of the seventh century.

In *Persia*, the era of YEZDEGIRD began in the year 632; that of the *Hejra* was introduced by OMAR in the year 638. Those of *Siam* with the *Burmáhs* have an era beginning in the year 638; but as they borrowed every thing relating, either to their religion or their astronomy, from *Ceylon*, and the *Peninsula* of *India*, this period must have originated there. The *Japanese* consider the ascension of the latter BUDD'HA, under the name of GUSO-BOSATZ, as a memorable epocha; and it happened in the year 631, because they say that he lived only fifty-nine

years, and he was born in the year 572. According to the *Satrujaya-mahátmya*, the translation into heaven of GUSO-BOSATZ or GAJA-VASISHTA, that is to say, he who abides in the mortal frame of an elephant, and called in the above treatise SRÍ-HASTI-S'ENA, a compound nearly of the same import, happened three years, eight months and fifteen days before the time of the *Panchmárás*, or MUHAMED and his four associates; that is to say, he died in November 617. But if we suppose with the *Paurán'ics*, that he lived sixty-six years, his ascension will fall in the year 638, according to the computation of the *Burmans* and *Siamese*. This BUDD'HA was born in the year 500, and reigned sixty-six years, according to the *Cumáricà-c'han'da*, in some copies of which we read 62 and 64; but he appears to be the same with GAJA-VASISHT'A, both being represented as the last incarnation of BUDD'HA; the *Japanese* having mistaken the era of his manifestation as a god, or his death, for that of his manifestation as a man.

Thus the *Jainás* in *India* say, that their legislator died in the year 1036 B. C. which the divines of *Tibet* consider as the year of his birth.

The *Christians* of *India*, in the seventh century, were actuated by the same principles, and chose the supposed year of CHRIST's ascension for the first of their new era. They were at that time in *India* in the most profound ignorance, through the want of pastors, as we observed before; and their religion was a strange medley of the *Christian*, and of that of BUDD'HA, which prevailed at that time in the *Peninsula*; insomuch, that M. POLO considered some of the *Aryyas*, in despite of their virtues, as idolaters. SALI-VA'HANA, or DE'VA-TAT, was considered as a brother or relation of BUDD'HA.

Our blessed Saviour entered on his mission when thirty years of age, like BUDD'HA; and like him, he was born of a virgin: the additional years were introduced from their mistaking the ecclesiastical cycle of 84 years for the period of his life; and like them, the *Christians* made a point of reckoning their era from this supposed year of his ascension. This was not peculiar to the *Hindus;* the *Christians* of *Egypt* chose the various manifestations of CHRIST, during his ministry, and the different events of his life, in preference to that of his birth. According to the appendix to the *Agni-purán'a*, the era of 'SACA, or 'SA'LAVA'HANA, was introduced into *India*, or began to prevail, in the year corresponding to that of CHRIST 676, exactly 135 years after the death of a certain VICRAMA'DITYA. The bloody wars between these two exalted characters, are supposed to have been only about their respective eras; and VICRA'MADITYA, in his dying moments, thought of nothing but his era; whilst it is the general opinion, that it began at his death, and of course he could not be the author of it. One would imagine that 'SA'LAVA'HANA's era would have begun the moment that he became a *'Saca*, by putting to death another *'Saca*, such as VICRAMA'DITYA was; but it happened otherwise; 'SA'LAVA'HANA thought no more of his own era, which was introduced after his death, by his followers, or adherents in the *Dekhin;* for it never was used in any other part of *India* except *Bengal.*

It is therefore my humble opinion, that the *Christian Era* was introduced, and new modelled in *India* by the *Christians*, and the *'Aryya*, or *Sálava*, Kings, on the decline of the *Christian* religion; and used by them and other *Hindus* in their intercourse with them.

It is supposed, that the *Bráhmens* are too proud to borrow any thing from their neighbours; but this is by no means the case; and whenever they are acquainted with the circumstance, they will most candidly acknowledge it, particularly astronomers and physicians.

After the conquests of ALEXANDER, and for many centuries after, there seems to have been an eager desire in *India* for foreign arts and sciences, curiosities, instruments of music, wine, and even beautiful damsels from *Greece*. According to ELIAN and DIO CHRYSOSTOM, the *Hindus*, as well as the *Persians*, had the works of HOMER translated into their native languages: and PHILOSTRATUS says, that they were well acquainted with the ancient heroes of *Greece*; and that they had statues made by *Grecian* artists. And this is very possible, as the *Greeks* of *Bactriana* were in possession of the *Panjáb* for more than a hundred and twenty years. The Kings of *Magad'ha* repeatedly wrote to the successors of ALEXANDER for sophists, or learned men, from *Greece*; and lately the famous JAŢA-SINHA, *Rája* of *Jaypur*, wrote to the King of *Portugal* for learned men, and he had several sent to him; and the King of *France* sent him also an astronomer, P. BOUDIER. He had the elements of EUCLID translated into *Sanscrit*, part of which fell into the hands of Mr. DAVIS. There, it is said, that this valuable book, originally written by VIS'VACARMA, or TWASHT'A', the artist god, had been lost for many thousand years; but was rescued from obscurity by the extraordinary efforts of JAYA-SINHA.

He had also another voluminous treatise, called the *Sidd'hánta-Samrát*, on geometry and astronomy, en-

tirely compiled from various authors from the west. The greatest part of it is now in my possession, and was procured at *Jaypur* by Colonel COLLINS, resident with SINDIA. Mr. DAVIS informs me also, that at the same time the work of THEODOSIUS, on the sphere was translated into *Sanscrit*. As these thefts are not recorded, the circumstance is hardly known now to any of the natives. JAYA-SINH'A had also an extract made of all the constellations in SENEX's celestial planisphere, and instead of 72 asterisms, he had 144 made out, by splitting all those that would admit of it into two or three new ones. The royal oak of course has found its way there, under the name of *Mula-vrĭcsha*, the radical or primeval tree; and the *Indian* is called *Sárendra*, or the chief of archers; and as the *Hindus* have no altars, the constellation of that name has been converted into a footstool.

There is a famous astronomer, whose works, or at least part of them, are still extant, well known all over *India*, and declared to have been a foreigner; as implied by his name of YAVANA'CHA'RYA, or the *Grecian* philosopher, and who lived, according to tradition, a little before the time of MUHAMED. The *Hindus* give the name of *Yavanas*, or *Greeks*, to the inhabitants of the countries to the west of *India*, probably because the *Greeks* were once masters of *Persia*, and afterwards the seat of empire was fixed at *Constantinople*. From the account they give of him, it does not appear that he was a native of *Greece*, but only deeply skilled in the learning of the *Greeks*, having probably attended the university at *Alexandria*.

They say that he was a *Bráhmen*, born in *Arabia*,

the inhabitants of which country were at that time followers of BRAHMA', and that the *Sanscrit* language was studied and well understood there by the learned. He came to *India*, where he resided for a long time, and in his old age he returned to his native country, in order to end his days at *Mócshéswara-sthán*, or *Mecca*, in the performance of religious duties. Dr. BUCHANAN informs me, that he saw in the *Dekhin* several tribes of *Jainas*, who insisted that they came originally from *Mecca* or *Arabia*; and that they were expelled by MUHAMED, or his successors.

There are certainly followers of BRAHMA' and *Bráhmens* to this day in *Arabia*; and I am credibly informed, by natives of that country, that in the interior parts there are still many idolaters, whom they suppose to be followers of BRAHMA', or *Hindus*, as they call them. The greatest part of the old names of places in *Arabia* are either *Sanscrit* or *Hindi*: and PLINY mentions two celebrated islands on the southern coasts of *Arabia*, in which there were pillars with inscriptions in characters unknown, I suppose, to the *Greek* merchants who traded there: but these were probably *Sanscrit*; as one of these two islands was called *Isura* or IS'WARA's island, and the other *Rinnea*, from the *Sanscrit Hrĭníyá*, or the island of the merciful goddess.

The *Hindus* claim *Mecca* as a place of worship belonging to them, and certainly with good reason. They say, that they were allowed to go and worship there for several centuries after the introduction of the religion of MUHAMED; but were afterwards positively forbidden even to approach this sacred place.

I always conceived, that there was only one sage of the name of YAVANA'CHA'RYA, who was considered as a foreigner; but having consulted lately several learned astronomers, they informed me, that there were no less than five who are considered as foreigners. Their names are C'HATTA, C'HUTTA, RO'MACA, HILLA'JA, and DISHANA; these, it is said, were *Yávanas* or *Grecks*. They certainly have very little resemblance with any *Greek* proper names, which we are acquainted with. Be this as it may, they are all supposed to have returned to their native country, with an intention to end their days at *Mecca*. From this circumstance, I suspect that they were *Greeks* from the famous university of *Alexandria*, and *Mecca* was at a very early period a famous place of woiship. GUY PATIN mentions a medal of ANTONINUS, in which it is called *Moca* the sacred, the inviolable, and using its own laws: and of this I took notice in my essay on SEMIRAMIS. The university at *Alexandria* was in a flourishing state, from the time of the PTOLEMIES to the fourth and fifth centuries, and even till the time of MUHAMED. *Hindus* often visited that famous city; for PTOLEMY conversed with several in the third century, who appear to have been well-informed men.

These five foreign astronomers wrote many books, but few remain; and the reason, in the very words of my learned friends, is, that the substance of these treatises having been incorporated into more recent tracts, they were of course neglected, and afterwards lost. This acknowledgment from *Bráhmens* surprised me not a little; but I find that astronomers in general, and learned physicians, are much more tractable and conversable than the other *Hindus*.

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Whatever may be our opinion about these five strangers, their names, and their country; yet from such an acknowledgment, and more particularly so from *Hindus*, we may rest assured, that there is some truth in it. The *Hindus* reckon three and twenty famous astronomers, eighteen of whom were natives of *India*; and the five others, foreigners. These they insist were natives of *Arabia*: and if so, they were called *Yavanácháryas*, not because they were of *Grecian* extraction: but because they were skilled in the learning of the *Greeks*. Indeed their names, or rather surnames, appear to be *Arabic*. HALLAGE, and CÁTHAN are names well known to *Arabian* writers: and EBN-DISSAN is the name of a famous impostor born at *Edessus*. Of RÓMACA or the MLE'CH'HA'VATA'RA, I took particular notice before, and DISHAN is the name of OMAR in several copies of RAGHU-NA'THA's list; and it was he who first established the era of MUHAMED in the year of CHRIST 638, and for this reason, they supposed him also to be a great astronomer, as well as RÓMACA.

There is another astronomer, called CANGHA or CANGHAM, and CANGHEH, whom the *Hindus* suppose to have been a foreigner; yet *Muselman* writers say, that he was a *Hindu*, and perhaps he lived on the western frontiers of *India*. By D'HERBELOT he is called CANCAH-AL-HINDI, KENKER, KENCAR and CANGHA. He wrote a treatise on astrology, in *Hindi* or rather *Sanscrit*, which was translated into *Arabic*, and is said to be extant. He is perhaps the same with MANGHEH, who, according to D'HERBELOT, made so conspicuous a figure at the court of HARUN-AL-RASHÍD, about the year 808, as a physician. The famous DANDAMIS or DAMA-DAMIS is unknown to

the *Hindus;* but the *Muselmans* in *India* call him, TUMTUM, and D'HERBELOT THOMTHOM-AL-HENDI. He is noticed by ABUL-FAZIL in his preface to the third volume of the *Ayin-Acberi.* He was probably thus called, because he lived upon a *Dumdum,* or *Dumdumá,* which is a platform of earth, now more generally called a *Chebootra* or *Tháná,* from *Sthána* a stand.

As the names, or rather the surnames of these foreigners, are in great part derivable from the *Arabic,* and from no other language, it is not improbable, but that several, if not all of them, were from *Arabia,* whatever their religious tenets might have been. The first of them, according to tradition, lived a little before MUHAMED, when the schools of *Alexandria,* and *Berytus* in *Phœnice,* were still flourishing. From that period, learning began to revive among the followers of MUHAMED; and of course this learned man flourished, from the latter end of the sixth, or from the beginning of the seventh century to the time of AL-MAMUN, who reigned at *Balkh* in the tenth, and till the invasion of *India* by the *Muselmans.*

The *Hindus,* at an early period, were famous for their knowledge of astronomy and astrology. The latter is entirely grounded upon the former; and the accuracy of the decisions, and predictions, depends entirely upon the precision, with which the conjunctions, oppositions, and the various aspects of the heavenly bodies are ascertained. In the first century, *Hindu* astrologers were in high estimation and repute at *Rome,* and none but the richest men could afford to

employ them. It appears, from ARRIAN on the authority of MEGASTHENES,* that in the time of ALEXANDER, they had almanacks, with predictions concerning the weather, and impending calamities, such as they have at present, but more particularly so in the *Peninsula.* STRABO says, that the *Brâhmens* professed astronomy;† and he extols, at the same time, the attention they paid to learning. Q. CURTIUS testifies, that they skilfully observed the motions of the heavenly bodies.‡ EUSEBIUS, who lived in the third and the beginning of the fourth century, says that it was a *Hindu,* who first delineated schemes of the heavens, or the principal constellations His name was ANDUBARIUS, and he was considered as the founder of astronomy in *India,* and was famous for his skill and wisdom. According to EUSEBIUS, he lived soon after the flood, in the western parts of *India;* and this famous astronomer probably formed, and delineated the twenty-seven lunar mansions, which seem to be the exclusive property of the *Hindus.* The opinion of EUSEBIUS, and the other learned authors whom I have mentioned, was certainly that of the age in which they lived; and STRABO says, that the notions of the *Hindus* concerning the universe, and the sphericity of the earth, were the same with those of the *Greeks.* They had a code of laws in the time of ALEXANDER, and they wrote upon a sort of paper; for thus I understand the words ἐν σινδόσι λίαν κεκροτημέναις, upon cloth well beaten.§ STRABO takes notice, that in his time some asserted, that the *Hindus* were acquainted with the use of letters, whilst others denied it. He adduces the above passage from NEARCHUS in

* ARRIAN de Indicis.
† Lib. 15.
‡ Lib. 8.
§ STRABO, lib. 15. p. 717.

proof of the former assertion; but the passage against it from MEGASTHENES is by no means conclusive; and seems to me, on the contrary, to prove that they were acquainted with the use of letters; for it implies only that they used no writing in their courts of justice in camp, where every thing was settled in a summary way; and it is even so to this day. Besides, says our author, such is the probity of the *Hindus*, that all the time he was in the camp of SANDROCUPTOS, which consisted of 400,000 men, none but petty thefts were ever brought before these courts, and they (the judges) even could not write. Under such circumstances, neither any code of laws, nor much learning, or any writing, were necessary; common sense and integrity were the only requisites on the part of the judges.*

During the first centuries of the *Christian Era*, the *Hindus* were very fond of travelling. Their Kings sent frequent embassies to the *Roman* and *Greek* Emperors: and some of these Embassadors went as far as *Spain*. Others visited *Alexandria* and *Egypt*, where PTOLEMY, in the third century, saw them, and conversed with them. Some of these Embassadors had long conferences, at *Babylon*, or rather *Seleucia*, with the famous BARDESANES: and pilgrimages to the *St'hán* of *Mahá-Bhagá*, now *Mábog*, or *Bambyke* in *Syria*, were very common, according to LUCIAN, as cited by the authors of the ancient Universal History. Even to this day, pilgrims from *India* go to *Persia*, *Georgia*, *Moscow*, and *Arabia*, *Bootan*, *China*, and even *Siberia*.

* STRABO, lib. 15. p. 699.

We are not to suppose, that there never was any intercourse between *India* and the more western countries of the old continent. There were diviners and soothsayers in *Syria* and *Palestine*, from beyond the east, that is to say from beyond *Persia*, and of course from *India*, 700 years before CHRIST, according to ISAIAH; and these, long after, found their way even to *Rome;* and, according to some, it was a *Hindu*, that had been shipwrecked in the *Red Sea*, who first pointed out the way to *India* by sea.* XERXES, when he invaded *Greece* in the year 480 B. C. had a large body of *Hindus* with him, whose officers were men of respectability, and there is little doubt but that they had *Bráhmens* with them.

Three hundred years before our era, the *Carthaginians* had numerous elephants from *India*, and their mahots or drivers were *Hindus*. They seldom used the *African* elephants, which, says PLINY, were timorous, and could not bear the sight of the elephants from *India*.† The *Carthaginians* had no proper name for an elephant, and from the mahots they adopted the *Hindu* name *Gaja*, which they pronounced *Gaisa*. Till that time, they, as well as the *Phœnicians* their ancestors, called them *Elaph* or *Alpha*, beeves or oxen :‡ and the *Romans*, when they saw PYRRHUS's elephants, called them also *Lucæ Boves*, and this was in the year 280 B. C.

POLYBIUS‖ informs us, that in the year answering

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* STRABO, p. 98 and 100.
† SALMAS. Exercitat. Plinian. p. 217.
‡ HESYCH. under the word *Alpha*.
‖ POLYB. Lib. 1. p. 42. and Lib. 3. p. 200.

to 251 B. C. METELLUS defeated ASDRUBAL in *Sicily*, killed six and twenty of his elephants, took one hundred and four, and sent them to *Rome*, with their drivers, who were *Hindus*. According to the same author, when HANNIBAL crossed the *Rhone* 218 years B. C. the drivers of his elephants were also *Hindus;* and after this period, we find a *Hindi* word for an elephant introduced into *Italy;* for till that time, they called them large oxen. This name was *Barrus*, or *Baro*, as it is written by ISIDORUS,* who says, that it was a *Hindu* denomination: *Baro* and *Baronem* in the objective case, are from the *Sanscrit Báran'a* and *Báran'am*. From *Barrus*, or *Baro*, the *Latins* made *barritus*, to express a noise like that made by an elephant, and also the verb *barrire*; and probably the word *Ebur* is derived from it.

When MANLIUS marched, at the head of an army, through *Caria* and *Pamphylia*, 189 years B. C. he came to the banks of a river, near the fort of *Thabusion*, called the river *Indus*, or of the *Hindu;* from a *Hindu* mahot, who fell into it from his elephant, and was drowned;† and this was on the borders of the greater *Phrygia*. Sometime before this, we read in ALCIPHRON'S letters, that *Hindus* of both sexes, in the capacity of servants, were not uncommon in *Greece*. Several emigrations took place from *India*, and we find some tribes of *Hindus* settled in *Colchis*, where are *Hindus* to this day; and HESYCHIUS asserts, that the *Sindi* of *Thrace* came originally from *India*.‡ When Q. METELLUS CELER was proconsul of *Gaul*, 59 years B. C. the famous ARIOVIST king of

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* ISIDOR. de origin.

† Tit. liv. lib. XXXVIII. C. 14.

‡ BRYANT'S Mythol. Vol. 3d. p. 217.

the *Suevi* made a present to him of some *Hindus*, who had been shipwrecked on the *German* shores. They were merchants, who had ventured thus far from their native country.* In the *Vrĭhat-cathá* we read of several *Hindu* merchants, who visited the *Sacred Isles* in the west, and being shipwrecked, they were made slaves; and some of them were so fortunate, as to obtain their liberty, and to revisit their native country. It is declared there, that they went a great part of the way by land, and then embarked at a place called *Itanca*:† another harbour is mentioned also under the name of *Pauta-pur*, and this subject I shall resume when I come to treat of the *Sacred Isles*. STRAHLENBERG saw a *Hindu* at *Tobolsk*, who went from *India* to that place, through *China*. BELL saw another *Hindu* from *Madras*, on the banks of the *Argoné*; and Mr. DUNCAN, Governor of *Bombay*, introduced another to my acquaintance, who had been there also. The distance from the *Indus* to *England* is one fourth less than that from *Madras* to *Tobolsk* through *China*;‡ and the embassadors of PORUS travelled as far as *Spain* 24 years B. C. The constant embassies, sent from *India* to the Emperors of *Rome* and *Constantinople*, are well known to the learned, even as late as the sixth century; but in the seventh, the growing power of the Muhamedans became an insurmountable obstacle to any further intercourse. Besides, the present state of society, manners and politics in the west, make it impossible for *Hindu* pilgrims to travel through *Eu-*

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* Cornel. Nepos apud PLIN. SUETON. CICERO in Vatin. c. 10. PLUTARCH, &c.

† *Vrĭhat-cat'há Lambaca* or Section the 5th called also *Chaturdárĭcá*.

‡ STRAHLENBERG p. 103. Asiat. Researches vol. vi. 483.

rope. They would be stopped at every step, and occasionally confined; and instead of alms, they would receive insults only from the lower classes.

But the most famous of all, was the embassy sent by PORUS to AUGUSTUS: the embassadors went to *Spain,* where he was at that time, 24 years B. C. according to OROSIUS; and the purport of their commission was to enter into an alliance with him. But, as some time was spent before any progress could be made in this affair, other embassadors were sent by PORUS, some years after, when they found the Emperor at *Samos.* This PORUS in his letter boasted, that he was lord paramount over 600 kings; and, in the supplement to the *Bhavishya-purán'a,* it is declared, that no less than 800 kings were the vassals of the famous VICRAMA'DITYA. With them were also embassadors from PANDION, king of the southern parts of the *Peninsula;* and they had in their train a *Brâhmen,* a native of *Bŕigugosha* (now *Baroach)* called C'HAD'GA the *Sarmana,* ZARMANOS CHAGAS. He chose to remain behind, and attached himself to AUGUSTUS, in whose service he remained for some time, in the capacity, it seems, of an augur or soothsayer.*

When the Emperor was at *Athens,* C'HAD'GA the *Sarmana* caused himself to be initiated into the sacred mysteries, though it was not the usual time; and soon after he voluntarily ended his days on a funeral pile. CALANUS followed ALEXANDER of his own accord, and ascended likewise the funeral pile at *Pasargada.* There was even a large detachment of

* STRABO. DIO. PLUTARCH and NICOL. DAMASCEN.

Hindus, who followed ALEXANDER into *Persia*, and which we find on the borders of *Media*, with EUMENES, eight years after the death of the former. It was commanded by the brave KETEUS, probably KETU, or the fiery meteor of war; and there was certainly little, or no compulsion used by the *Greeks*, for they took even their wives and families along with them.* KETEUS died fighting valiantly, and his two wives insisted upon burning themselves with the dead body; but it was found that the eldest was with child, and therefore she was prevented from following her husband. The youngest went triumphantly, and was led by her brother, and other relatives, and servants, to the funeral pile.*

CLAUDIUS received also an embassy from a king of *Ceylon:* and when TRAJAN was marching against the *Parthians* in the year 103, some princes of *India* sent embassadors to him, requesting him to settle some disputes between them and their neighbours, probably the *Parthians*. It is remarkable, that during this expedition, TRAJAN was constantly supplied with oysters from *Great Britain;* and which were preserved fresh, by a particular process, discovered by one of the first epicures of the age. There were embassadors from *India* sent to ANTONINUS PIUS, to DIOCLETIAN, and MAXIMIAN; to THEODOSIUS, HERACLIUS, and JUSTINIAN; and we read † of two *Hindu* kings, putting themselves under the protection of DIOCLETIAN and MAXIMIAN, and their names were GENNOBON and ESATEC'H. In the year 274, AURELIAN took *Palmyra*, and made Queen ZENOBIA

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* DIODOR. SIC. lib. xix. C. 2.
† Anc. Univ. Hist. vol. xviii. p. 78.

prisoner. There he found a body of *Hindus*, whom he carried to *Rome*, to grace his triumph. DAMASCIUS, who was contemporary with JUSTINIAN, in his life of ISIDORUS, relates several curious anecdotes of SEVERUS, a *Roman*, but by birth an *African*, and who lived in the time of the Emperor ANTHEMIUS. SEVERUS was a philosopher of most austere manners, and great learning, and fond of the society of learned men. After the death of that Emperor in 473, he retired to *Alexandria*, where he received at his house several *Bráhmens* from *India*, and whom he treated with the greatest hospitality and respect. Dates and rice were their food, and water their beverage, and they shewed not the least curiosity, refusing to go and see the most superb fabrics and palaces, with which that famous city was adorned.*

It is remarkable, that ancient travellers make no mention of the monstrous statues of the *Hindus*. The historians of ALEXANDER take notice of the *Sibæ*, carrying among their standards the image of HERCULES, whoever he was. The *Suraseni* round *Muttra* on the *Jumná*, had also a statue of HERCULES,† or BALA-DEVA. PHILOSTRATUS takes notice of some figures cut out of the rock beyond *Hardwar*; but these statues had nothing monstrous in them, no more than those made by *Grecian* artists in the *Panjab*, according to the same author. It is not improbable then, that at that time the *Hindus* had not yet attempted to represent, either in stone or wood, their monstrous deities. They were first introduced to our

* Photii Bibliotheca, p. 1040 and SUIDAS v. SEVERUS.
† Asiat. Researches, vol. v. p. 294.

knowledge by *Jews*, according to CLAUDIAN, who wrote in the fifth century, and who says:

> ——————Jam frugibus aptum
> Æquor, et assuetum sylvis delphina videbo:
> Jam cochleis homines junctos, et quidquid inane
> Nutrit JUDAICIS, quæ pingitur *India*, velis.

From this it appears, that in his time the *Romans* adorned their houses with tapestries, worked by *Jews*, and representing all the wild and monstrous figures of *Hindu* mythology, such as men growing out of shells. This is an obvious allusion to SAN-C'HA'SURA, and his tribe living in shells, and peeping out of them in *Shanc'ha-dwipa* or *Zangh-Bar*.

In the year 529, a king of the *Hemiarites* in *Arabia*, called AL-MONDAR, a general name for the kings of that tribe, and generally residing at *Hirah*, invaded *Syria*; and the *Roman* exarchs, or Governors, were obliged to fly to *India* for shelter, and certainly by sea, as the *Romans* were at war with the *Persians*,* and probably they found no other means of escaping, but by getting on board of some ship just going to sail for *India*.

There were at *Rome* augurs, and diviners from all nations, but mostly from *Chaldea*. There were some from *Armenia*, *Egypt*, and even a few *Jews*, and particularly women from that nation. There were also astrologers, says JUVENAL,† from *Phrygia* and *India*; and none but very rich people employed these, and this was about the middle of the first

* DU FRESNOY Chronolog. A. D. 529.
† Sat. vi. v. 584 and 549.

century. There were many *Hindus* at *Alexandria*, according to PTOLEMY, who lived in the beginning of the third century. The inhabitants of *Europe*, at an early period, did by no means show so much readiness in leaving their native homes to visit distant countries, and particularly *India*. We are told that PYTHAGORAS and DEMOCRITUS visited the *Hindu* sages; but these accounts are delivered in too vague a manner, to deserve any credit.

The first *European* upon record, who visited *India*, is SCYLAX, a *Greek* and experienced seaman, sent by DARIUS HYSTASPES above 500 years B. C. to explore *India*. For this purpose he went to *Caspatyrus* or *Caspapyrus*, now *Coshabpoor* upon the *Hydaspes*, called also *Indus*, and by the *Hindus* the lesser *Sindhu* or *Sindh*. Having made the necessary arrangements, he sailed down a large river, which flowed toward the east, and then he entered the ocean, and returned by the way of the *Red Sea*,, and sailed to the bottom of it, where his voyage ended, after a circumnavigation, both on the river and by sea, of two and thirty months. This river is unfortunately called the *Indus* by HERODOTUS; otherwise, from the particulars, such as the course of that river, and the time that his circumnavigation lasted, one would suppose that it was the *Ganges*; and indeed many learned men are of that opinion.

The next *European* who visited *India* was the philosopher PHÆDON, about 430 years B. C. but it was not an act of his own. He is said to have been an *Elean*, probably because he was a native of *Elea* in the lesser *Asia*. It is recorded of him, that he was taken, and detained by *Indians* and afterwards sold by them as a slave. It is probable, that he had been

sold first to some *Persian* nobleman, sometime after appointed to the government of some district in *India*, where PHÆDON was carried away by a party of *Hindus*. Be this as it may, we find him afterwards at *Athens*, as a slave again, to a man, who kept women and handsome young men, for the purpose of prostitution. He was redeemed by ALCIBIADES at the request of SOCRATES, whose disciple he became. He founded the *Eliac* school, called *Eretrian* afterwards, from its having been transferred to *Eretria* in *Eubœa*, by MENEDEMUS his successor.*

There was a regular trade carried on, to *India*, from the accesson of the PTOLEMIES to the throne of *Egypt*, to the conquest of that country by the *Romans*, which did not cease till the middle of the seventh century, when the growing power of the *Muhamedans* put an insurmountable obstacle to a regular intercourse. The *Greeks* under the PTOLEMIES, had settlements at *Callian* near *Bombay*; but they were driven out of them by the native kings. It seems also from the *Peutingerian* Tables, that the *Romans* had a considerable settlement near *Muziris* now *Mirjee*, where they had erected a temple in honour of AUGUSTUS;† and they had also two cohorts, or 1200 men, to protect their trade. The imports and exports were the same as they are to this day, as it appears from ARRIAN'S *Periplus*, and the *Justinian* code.

The *Greek* Kings of *Bactriana* ruled over all the countries on the banks of the *Indus*, even as far as *Sirhind*, during a period of 129 years, that is to

* See SUIDAS, HESYCHIUS de illustrib; and LAERTIUS.

† See *Peutingerian* Tables.

say from the year 255 to 126 B. C. Even some of them were in possession of the western parts of the *Gangetic provinces:* and DEMETRIUS is mentioned as one of them; and according to Sig. BAYER, he never was King of *Bactriana* or *Balk*, but of some inland part of *India*, extending beyond the *Ganges*, about the year 195 B. C. According to STRABO, his predecessor MENANDER conquered the countries to the east of the *Hypanis*, as far as the *Jumná*.* His empire extended from *Pattalena*, to *Zizerus*, which I take to be the small, but famous lake called *Jid-jer*, or the spring of *Jid*, noticed by CTESIAS, under the name of *Sid*, and a little to the westward of the *Jumná* and *Dilli*.†

To these conquests DEMETRIUS added some maritime countries to the eastward of *Patalene*, such as *Sigertis*, and the kingdom of *Tessariostus*, now the countries of *Cach'ha* and *Gujjar'át*, as I shall show in the appendix.

There are now numerous *Hindus* roving all over *Arabia* and *Persia*, as far as *Astrachan*, or settled in some places of trade for a few years only, when they return to *India*.‡ for I take no notice here of numerous tribes of *Hindus*, who are considered as natives of *Persia*, *Turan* and *Colchis* or *Georgia:* they are called *Hindi* all over these countries, and have been settled there from time immemorial.§

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* STRABO, Lib. 11. p. 516.

† See MAURICE's Modern History of *Hindoston*, vol. 1. p. 95. It is called erroneously *Bhedar* in the Ayin-Acberi, vol. 2. p. 107.

‡ FORSTER's Travels, vol. 2.

§ According to the late Nabob MEHDI-ALI-KHAN, a native of *Mesched*. See Essay on the origin of *Mecca*, Asiatic Researches, vol. 5.

From the *Malabar Coast* they go to *Mosambique*, where they have agents, who generally reside there seven or eight years; and STRAHLENBERG takes notice of a merchant from the *Malabar Coast*, at *Astrachan*.* From *Surat* and *Gujjarát*, they go to *Mascat* and other trading places in *Arabia*, where *Bráhmens* are to be found also, according to NIEBUHR. ARRIAN in his *Periplus* says, that the inhabitants of the island of *Dioscoridis* (now *Socotora*,) consisted of *Arabs* and *Hindus*, with a few *Greeks*, settled there on account of the trade to *India*. The famous PRA'N-PURI told me, that when he was at *Baharein* on the *Persian Gulf*, he was informed by the *Hindus*, whom he found settled there, that they used to go formerly to *Egypt*, where they had houses of agency, but that they had left off going there for about two or three generations.

This shows, that there was between the *Greeks*, *Romans*, *Carthaginians* and the *Hindus*, a constant and reciprocal intercourse (which is by no means the case now) for a period of 1200 years at least: and to which nothing, but the overgrowing power of the *Muselmans*, could put a stop. In visiting the sages of *Babylonia* and *Egypt*, the *Hindus* must have been greatly surprised, and their vanity humbled, when they heard them talk of their remote antiquity. Then, and not before, in my opinion, they resolved not to be behind hand with any of them; and certainly they have succeeded wonderfully. Neither the *Greeks* and *Romans*, nor the *Turdetani*, a *Galic* nation, though settled in *Spain*, according to STRABO, carried history, and the beginning of things, beyond

a period of 6000 years, exactly like the *Jews*, and *Hindus* formerly, according to MEGASTHENES. The *Gothic* tribes entertained also the same notions, as appears from the cosmogony of ORPHEUS, who was a *Goth.**

The *Hindus* had the system of the *Yugas* long before; but this was not peculiar to them, for it prevailed all over the west, and HESIOD, who lived between 900 and 1000 years before CHRIST, declares that *Cali-yuga* was just beginning; and the *Jainas* assert that it began about that time. Though the *Yugas* are of a very great antiquity all over the world, yet the *Hindus* did not think of stretching their duration to such an enormous length, till a period comparatively modern; and the *Yugas* in the west were also the component of their grand *Calpa*, which consisted equally of 12,000 years, but with this difference, that in the west these were considered as natural years, which is not the case in the east, at least now.

The first time we heard, in the west, of this extravagant system of chronology, was about the middle of the ninth century; when we were informed by ABU-MAZAR, a famous astronomer, who lived at the court of AL-MAMUN at *Balkh*, that the *Hindus* reckoned from the flood or the beginning of the *Cali-yuga*, to the *Hejra*, 720,634,442,715 days, or 3725 years.

There is obviously a mistake, originating either with the transcriber or translator: but it may be ea-

* See GESNER's notes on the fragments of ORPHEUS, also FABRICIUS Cod. Pseudepigr.

sily rectified. There is exactly that number of years, from the beginning of the *Cali-yuga* to the *Hejra:* but that immense number of days are reckoned from the creation to the *Cali-yuga*, according to BRAHMAGUPTA's system. Mr. DAVIS, after reading this passage in my manuscript, kindly undertook to examine it more particularly, and I beg leave to refer to his learned note on the subject, in the appendix at the end of the essay on VICRAMA'DITYA and SALIVAHANA.*

Till that time, the extravagant numbers of the *Hindus* were unknown to the *Greeks* and *Romans*, with whom they kept up a constant intercourse. That the *Hindus* concealed the whole from them, is inadmissible: for it is natural to suppose, that they were equally vain with the rest of mankind. We are well acquainted with the pretensions of the *Egyptians* and *Chaldeans* to antiquity: and surely they did not take the trouble of inventing fables to conceal them. On the contrary, MEGASTHENES, a man of no ordinary abilities,† who had spent the greatest part of his life in *India*, in a public character, and was well acquainted with the chronological systems of the *Egyptians*, *Chaldeans* and *Jews*, made particular inquiries into their history, and declares, according to CLEMENS of *Alexandria*, that the *Hindus* and *Jews* were the only people, who had a true idea of the creation of the world, and the beginning of things: and we learn from him, that the history of the *Hindus* did not go back above 5042 years, from the invasion of *India* by ALEXANDER. Manuscripts differ; some have 5042, or 6042: others have 5402

* As. Res. v. 9. p. 242.
† See Asiatic Researches, vol. 5. p. 290.

years, and three months; for he calculated even the months; but the difference is immaterial in the present case.

This period of the *Hindus* was adopted afterwards by the *Persians*, or was common to both: and the latter reckoned, from the creation to the era of MELIC-SHAH, in the year 1079 of CHRIST, 6,586 years;* that is, they placed the creation 5507 years before CHRIST. It appears also from GEORGE of *Trebizond*, that the *Persians* reckoned, from the flood to the year of CHRIST 632, or era of YEZDEJIRD, 3,735 years, ten months, and twenty-three days, conformably to the ideas of ABU-MAZAR: and this is again the period of the *Cali-yuga* of the *Hindus*. From ALEXANDER's entering *India*, to the same era of MELIC-SHAH, there are 1408 years, which deducted from 6,586, there remains 5178; and this I believe was originally the true reading in MEGASTHENES's account of *India*. Be this as it may, the difference, relatively speaking, is not very considerable, and is immaterial in the present case.

CHRIST was the son of a carpenter, and himself a carpenter, or *Tacshaca* in *Sanscrit*. The *Persians* called him a *Peishé-cara*, handicraftman and tradesman. In the *Calpa-druma-Calicá*, a treatise of the *Jainas*, and in my possession, 'SA'LA-VA'HANA, called by the *Hindus* a *Tacshaca*, and said to be also the son of a *Tacshaca*, *Tash'tá*, or *Twash'tá*, is declared to have been a *Sr'avaca* or *Sávaca*, a tradesman: and in the western parts of *India*, as in *Gurjar'át*, all banyans and tradesmen are called *'Sávacas*. The words of the *Calicá* are, "'SA'LAVA'HANA *Námá Rájá Jaina*; *Parama 'Srávaca-pati*. The King called 'SA'LAVA'-

* BAILLI's Astronom. Ind. p 251.

HANA was a *Jaina*, and the lord and master of the *'Sr'avacas*," or *'Sábacas*, as more generally written and pronounced.

Even the name of 'SA'LI-VA'HAN, 'SA'LIBAN, and 'SA'LBA'N, as he is called in the spoken dialects, seems to be of *Persian* and *Arabic* origin, as well as *Peisheh-cár*, the name of his followers. *Salib*, or *Sulib*, signifies a stake, a cross, a gibbet, the *Roman Furca*; like the *Greek* Σταυρος, *Sálib* or *Sálb* signifies also crucified, and in the plural form, it becomes *Sálub*, and *Sálbán*. *Ashab-al-Sálib*, means the *Christians* in *Arabic*, that is to say, the followers of the crucified. The best *Sanscrit* expression for this is *'Suliva*, *'Sálava*, or *'Salwa* in a derivative form, and these are indifferently pronounced *'Sálaba*, or *'Salba*, and in the plural number *'Sálabán*, and *'Sálban*. In the *Cumárica-c'han'da*, these *'Sálavas*, or *'Salbans*, are mentioned, in the same page with 'SACA, or 'SA'LA-VA'HANA, and as existing at the time this *Puran'a* was written. The copy of that section of the *Scanda-purán'a* in my possession, was written about 230 years ago in *Gurjarát*: and the writer or transcriber, well knowing, that *'Sávaca* was a title of 'SACA, or 'SA'LIVA'HANA, wrote first *'Sávaca*, instead of *'Saca*; but recollecting himself, and finding that there was a redundant syllable in the verse, he drew two small strokes with the pen across the middle syllable, showing, that it was to be left out, and the whole word to be read *'Saca*. In the *Lucknow* copies of this section, no mention is made of *'Saca*, and the whole verse is omitted.

The copies from *Chitra-cúta*, have the whole verse; but the name of *'Saca* is variously written, sometimes *'Sacra*, *'Sraca*, &c. These readings are obviously erroneous. There were no other copies of that sec-

tion at *Benares* but those procured from *Chitra-cúta*, and *Lucknow*, till I was lately presented with a neat copy 230 years old, from *Gujarát*, by a *Pandit* of that country. The *Lucknow* copies are tolerably accurate; but those from *Chitra-cúta* are miserably mangled, through the carelessness of transcribers. The passage relating to *'Saca*, is in the following words: *Tatah trishu sahasréshu 'sate chápyadhicéshu cha; 'Sacó náma bhavishyas'cha yótidáridra háracah;* and whether we read *'Saca* or *'Savaca*, it points to the same individual.

The idea that SA'LIVA'HÂNA was borne on a tree, cross, or *furca*, they might have borrowed from the *Manicheans*, who represented CHRIST stretched upon a tree. *Váhana, báhana*, and *váha* or *báha*, are nouns derived from the verb *vah, veho*, to carry; and used both in an active and passive sense. Thus *Havya-váhana* is one of the titles of *Agni*, or fire. INDRA is called *Mégha-váhana*, or the cloud borne; *Gand'-ha-váha* is the wind, from its being the vehicle of perfumes. The clouds loaded with water are called *Vári-váha*. Thus *'Sál-bah, Hál-bah, 'Sál-báhana*, &c. may signify either he who carries his cross, or who was borne, or exalted upon the cross. *Crucifer* is one of the titles of CHRIST, perfectly answering to *'Sála-baha*.

The *Hindus* are very fond of forms or emanations, which they consider to be the same with the original from which those emanations sprang; and disciples are very often considered as so many forms of their masters. It is then very possible, that they should have considered the Apostle and disciple, who first preached the Gospel in *India*, as a form of CHRIST, or as CHRIST himself, after several centuries had elapsed; and thus possibly have mistaken the year

of the death of the form, or disciple, for that of his principal. Now some of the Apostles lived to a great age; and St. THOMAS, for instance, is supposed to have lived seventy-three years, and to have suffered martyrdom about the seventy-fourth or seventy-fifth year of the *Christian Era.*

The year of the death of VICRAMA'RCA, and that of the manifestation of 'SA'L-BA'HAN, are acknowledged to be but one and the same; and they are obviously so, according to the *Cumáricá-c'hand'a*, that remarkable year was the 3101st of the *Cali-yuga*, and the first of the *Christian Era*, thus coinciding also with the *Samaritan* text, which is a remarkable circumstance.

Some learned *Pandits*, from the western parts of *India*, are of opinion, that the era of VICRAMA'DITYA was originally reckoned from the first year of his reign, in the year 3044; and that, after a reign of fifty-six years, his death happened in the year 3101.

This was certainly the opinion of the author of the *Cumaricá-c'hand'a*, and of the *Pándits* who assisted ABUL FAZIL, who says, in his summary of the history of the Kings of *Málava*, that 'VICRAMA'DITYA's era began the first year of his reign; and this makes this legend more consistent and probable.

In the *Vrĭhat-Cathá*, 'SALIVA'HANA is called *Nrĭ-sinha*, or the man-lion, answering to the lion of the tribe of JUDA; and one of the forms of BUDD'HA is called *Nrĭ-sinha*, both by the *Puráńics* and the *Baudd'has*. *Sacti-sinha*, or the energetic lion, is also the name of 'SA'LIVA'HANA in the appendix to the *Agni-puráńa*. According to the *Vrĭhat-cat'há*, VI-

CRAMA'DITYA marched from his capital city *Pátalí-putra*, or *Patna*, to wage war against NRĬ-SINHA, King of *Pratisht'hána*.

VI. The cross, though not an object of worship among the *Baudd'has*, is a favourite emblem and device with them. It is exactly the cross of the *Manicheans*, with leaves and flowers springing from it, and placed upon a mount *Calvary*, as among the *Roman Catholics*. They represent it various ways; but the shaft with the cross bar, and the *Calvary* remain the same. The tree of life and knowledge, or the *Jambu* tree, in their maps of the world, is always represented in the shape of a *Manichean* cross, eighty-four *Yójanas* (answering to the eighty-four years of the life of him who was exalted upon the cross), or 423 miles high, including the three steps of the *Calvary*.

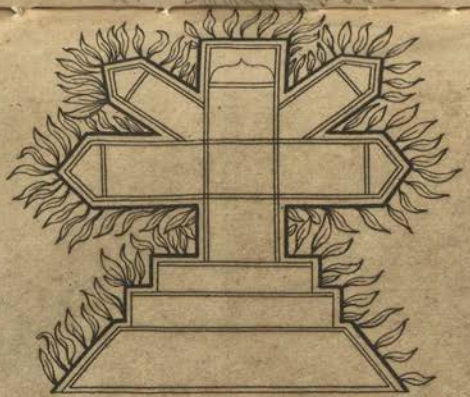
This cross, putting forth leaves and flowers, (and fruit also, as I am told) is called the divine tree, the tree of the gods, the tree of life and knowledge, and productive of whatever is good and desirable, and is placed in the terrestrial *Paradise*. AGAPIUS, according to PHOTIUS,* maintained, that this divine tree in *Paradise*, was CHRIST himself. In their delineations of the heavens, the globe of the earth is filled up with this cross and its *Calvary*. The divines of *Tibet* place it to the S. W. of *Meru*, towards the source of the *Ganges*. The *Manicheans* always represented CHRIST crucified upon a tree among the foliage. The *Christians* of *India*, and of St. THOMAS, though they did not admit of images, still entertained the greatest veneration for the cross. They

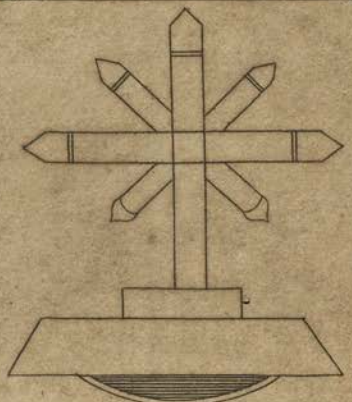
* Phot. Biblioth. p. 403.

placed it on a *Calvary*, in public places, and at the meeting of cross roads; and it is said, that even the heathen *Hindus* in these parts paid also great regard to it. I have annexed the drawings of two crosses, from a book entitled the *Cshétra-samása*, lately given to me by a learned *Baudd'ha*, who is visiting the holy places in the countries bordering upon the *Ganges*.* There are various representations of this mystical symbol, which my friend the *Jati* could not explain to me; but says, that the shaft and the two arms of the cross remain invariably the same, and that the *Calvary* is sometimes omitted. It becomes then a cross, with four points, sometimes altered into a cross *cramponné*, as used in heraldry.

In the second figure there are two instruments depicted, the meaning of which my learned friend, the *Jati*, could not explain. Neither did he know what they were intended to represent; but, says he, they look like two spears: and indeed they look very much like the spear and reed, often represented with the cross. The third figure represents the same tree, but somewhat nearer to its natural shape. When it is represented as a trunk without branches, as in *Japan*, it is then said to be the seat of the supreme ONE. When two arms are added, as in our cross, the *Trimurtí* is said to be seated there. When with five branches, the five *Sugats*, or grand forms of BUDD'HA, are said to reside upon them. Be this as it may, I cannot believe the resemblance of this cross and *Calvary*, with the sign of our redemption, to be merely accidental. I have written this account of the progress of the *Christian* religion in *India*, with the impartiality of an historian, fully

* Plate 2.





The CALPA-VRÎCSHA of the BAUDD'HAS which is the same with the CROSS of the MANICHEANS.

persuaded that our holy religion cannot possibly receive any additional lustre from it.

The word *Mléch'ha* in *Sanscrit*, does not signify literally a foreigner; but it is generally understood in that sense by the *Paurán'ics*, when announcing, in a prophetical style, the different powers who were to rule over *India*. *Hear now*, says the author of the *Vishnu-puráṅa, hear now what will come to pass in these times: powerful Kings among the* Aryya-Mléch'has *will appear; they will subvert the reigning religion, spoil and deceive the* Prajás, *or the people.*

In the *Bhágavata*, they are called *Abrahmavarchasah* in the plural, and *Abrahmavarcháh* in the singular; because, as they understood not the fundamental tenets of their own religion, through their spiritual blindness, and the hardness of their hearts, they gave it up to embrace a new one.

In the *Brahmán'da* we read, *then will come the* Aryya-Mléch'has, *who will seduce the people; they will be proud, and at the same time distrustful, as if constantly alarmed.*

In the *Váyu-puráṅa* it is declared, *that generations of Kings will rise, and set like the sun. Then will come the* Aryya-Mléch'has, *who will forsake the* D'harma, *religious creed,* Carma *worship,* Tírt'ha *the places of pilgrimage of their ancestors; they will seduce the people with their new doctrine, and will grow worse and worse every day. After them* Sarva Mléch'ha, *all sorts of foreign and impure tribes will overrun the country.*

Such is the character given of these good *Aryyas*, called *Avariiam*, and *Abraiam*, as well as their

Apostle, even as low as the times of Mr Polo in the 13th century. From *Abáryyam*, the *Pauránics* probably made *A-Brahma*, in order to shew their contempt of them, but more particularly in the latter times, when they grew worse and worse; and M. Polo speaks of some of the *Abraiam*, or *Abramiam*, nearly in the same terms. Yet in his time the denomination of *Avariiam*, in *Sanscrit Avárryyam*, and *Abáryyam*, was applied to them; and he was told that it signified good and pious men.

I had, for a long time past, particularly inquired from the *Baudd'has* whether they knew any thing of the wars of Budd'ha with Tevetat;* but I was always answered in the negative. It was my fault in some measure; I did not make use of the other synonymous names of that enemy of the religion of Budd'ha. I mentioned before, that I supposed that Tevetat was a corruption from De'va-Tashta, synonymous with De'va-Twashta', or De'va-Silpí, the divine artist, or carpenter, who is more generally known under the name of Visva-carma, or the universal artist. Under this last appellation, Te'veta't is known to them. Soon after a learned *Jati* presented me with a book called the *Budd'ha-charitra*, with leave to take a copy, in which the wars of Budd'ha, with Vis'va-carma, or De'va-Twasht'a', are related. It is a most voluminous work, and still it is incomplete, and the seat of war was in *India*.

* In the *Lalita vistára purána*, which was brought by Major Knox from *Népál*, the name of *Budd'ha's* kinsman and rival is De'vadatta (answering to Deodatus). It is probable, that La-loubere's *Tevetat* is a corruption of the name of De'vadatta. H. T. C.

Of the two TRI-CU'TA'D'RI, *or* MOUNTAINS *with three Peaks; one in the* N. W. *and the other in the* S. E. *Quarters of the Old* CONTINENT.

I. TRI-CUTA'D'RI, the mountain *(Adri)* with three peaks *(Tri-Cúta,)* answers to Τρικορυφος and Τριακριος in *Greek:* for in that language ακρον signifies properly a peak, summit, and implicitly a headland, or promontory. POLYÆNUS calls *Mount Méru* or *Meros, Tri--coryphus:* it is true, that he bestows improperly that epithet on *Mount Méru* near *Cabul,* which is inadmissible. *Méru,* with its three peaks on the summit, and its seven steps, includes and encompasses really the whole world, according to the notions of the *Hindus* and other nations, previously to their being acquainted with the globular shape of the earth. I mentioned in the first part, that the *Jews* were acquainted with the seven stages, *Zones* or *Dwípas* of the *Hindus;* but I have since discovered a curious passage from the *Zohar-Manassé* on the creation, as cited by BASNAGE, in his history of the *Jews.** "There are, says the author, "seven earths, whereof one is higher than the other; for the holy-land is situated upon the highest earth, and *Mount Moriah* (or *Méru*) is in the middle of that holyland. This is the hill of GOD, so often men-

* See English Translation, p. 247.

tioned in the Old Testament, the mount of the congregation, where the mighty King sits in the sides of the north, according to ISAIAH, and there is the city of our GOD."* The *Méru* of the *Hindus* has the name of *Sabhá*, or the congregation, and the gods are seated upon it in the sides of the north. There is the holy city of *Bráhmá-puri*, where resides BRAHMA' with his court, in the most pure and holy land of *Ilávratta*.

Thus *Méru* is the worldly temple of the supreme being, in an embodied state, and of the TRI-MU'RTTI, or sacred *Triad*, which resides on its summit, either in a single, or three-fold temple, or rather in both: for it is all one, as they are one and three. They are three, only with regard to men involved in the gloom of worldly illusion; but to men who have emerged out of it, they are but one; and their three-fold temple, and mountain with its three peaks, become one equally. Mythologists in the west called the world, or *Méru*, with its appendages, the temple of GOD, according to MACROBIUS.

Hence this most sacred temple of the supreme being, is generally typified by a cone or pyramid, with either a single chapel on its summit, or with three; either with, or without steps.

This worldly temple is also considered, by the followers of BUDD'HA, as the tomb of the son of the spirit of heaven, whom I conceive to be the first man, re-emerging in every *Calpa*, or the first lawgiver, often confounded with the first man. His bones, or limbs were scat-

* ISAIAH, c. 14. v. 13. Psalm 48, &c.

tered all over the face of the earth, like those of OSIRIS and JUPITER ZAGREUS. To collect them was the first duty of his descendants and followers, and then to entomb them. Out of filial piety, the remembrance of this mournful search was yearly kept up by a fictitious one, with all possible marks of grief and sorrow, till a priest announced, that the sacred relics were at last found. This is practised to this day by several *Tartarian* tribes of the religion of BUDD'HA; and the expression of the bones of the son of the spirit of heaven is peculiar to the *Chinese*, and some tribes in *Tartary*.

The *Baudd'hists* in this country are so close, reserved, and ignorant, in general, that hardly any information can be obtained on this subject. Besides, they acknowledge that it is so awful a theme, that they really avoid to make it a subject of conversation. They confess that the pyramids, in which the sacred relics are deposited, be their shape what it will, are an imitation of the worldly temple of the supreme being, and which is really the tomb of the first of his embodied forms; or of his son, in the language of the *Chinese*, *Tartars*, and of the *Greeks* also, who were little acquainted with the system of emanations and incarnations. They also declare, that many of these pyramids do not really contain the bones of the *Thácur*, or Lord: and though they are to be supposed, and asserted to contain them, the real place where they are deposited, should remain unknown, in order to prevent profanation; exactly like the various tombs of OSIRIS. For this reason, the sacred relics, instead of being deposited in the pyramid, are always placed in a small vault deep under ground, at some distance from it, as at *Sárnát'ha*, near *Benares*.

This monument is about fifty feet high, of a cylindrical form, with its top shaped like a dome. Similar monuments, but never more than three or four feet high, are often erected by *Hindus*, upon the spot where a married woman burned herself with her husband. These monuments are in general called *Satí;* and the enormous one at *Sárnáth* is a sort of *Satí* over the bones of BUDD'HA. According to tradition, it was erected over the ashes of those who fell there in battle, in the invasion of the *Muslemans.* But this is impossible; as this monument is the chief and principal piece of that sacred fabric, which was begun many years before the said invasion. The only part that was finished is the tomb of BUDD'HA; all the others, which were intended for the splendor of the place, and the convenience of the royal inhabitants and priests, remaining in an unfinished state. The secret vault, in which these relics are deposited in general, is called the *Thácur's Cúti*, the room or cell of the Lord; and in the inscription found amongst the ruins above this cell, it is declared that ST'HÍRPA'LA and VASANTA, sons of a King of *Gaur*, in *Bengal*, built this *Cúti.* It follows from hence, that these were the persons who deposited there the *Thácur's* bones. In the above inscription it is declared, that this happened in the year of VICRAMA'DITYA 1083, or of our Lord either 1017 or 1027.*. In the inscription found at *Islámabad*,† these relics, consisting of a few bones, are said to have been deposited in two brass vessels in a *Cúti*, or room under ground. In the account of the

* As. Res. v. 5. p. 133.

† As. Res. v. 2.

discovery of two urns at *Sárnát'ha*, it is mentioned that the *Cúti* was eighteen cubits, or twenty-seven feet, under ground.* There the relics were deposited in an urn, enclosed in a vessel of marble, in the shape, and of the size of the famous *Barberini* monument. There were a few bones only, with various trinkets, which consisted of pieces of coloured glass, all of them perforated, with thin leaves of gold, and some coarse pearls. These ornaments are by no means a proof that these bones were those of a female. It is more probable, that they formed a chaplet used by devout people, or rosaries and bracelets, with which the statues of BUDD'HA are generally decorated. The marble vessel, which contained the urn, is more highly finished than that of the *Barberini* monument. The urn itself is of a more elegant form than that in the above monument. It is in the shape and of the size of a chalice; it has no carved figures, but elegant mouldings, exquisitely finished, and is of green marble. I suspect the whole to be of foreign workmanship; for it is totally different, both in shape and workmanship, from vases in use among the *Hindus*, either at this day or in former times. PHILOSTRATUS informs us, that statues, by *Grecian* artists, were by no means uncommon in the N. W. parts of *India*. STRABO says also, that altars of *Grecian* workmanship were often found in the western parts of *India;* and ARRIAN, in his *Periplus*, takes notice of altars and of small temples in the *Grecian* taste, near *Barygaza* or *Baroach*. The practice of thus preserving the bones of BUDD'HA is of great antiquity; for it is expressly mentioned by CLEMENS of *Alexandria*, who says, that

* As. Res. vol. v. p. 131.

they were deposited under a pyramid. In the history of *China* we read, that in the year 335, a bone of Fo was sent from *India* to the Emperor of that country, who was highly pleased with this precious relic: though his minister HANYU made a very spirited remonstrance against this innovation; and which is to be found in DU HALDE's *China*.

The followers of BRAHMA are not addicted to the worship of dead men's bones, and I know but one instance to the contrary. At *Jagan-nát'ha* they have a bone of CHRÍSHNA, which is considered as a most precious and venerable relic; so much so, that few people are allowed to see it: and *Hindus* are not fond of making it the subject of conversation, any more than the *Baudd'has*.

The shape of these monuments is always either that of a pyramid or of a cone, with some trifling deviations occasionally. Thus the cone assumes the shape of a trump-roof: sometimes it is formed by the revolution of a *cymatium*, or Ogive round an axis; and these two forms are generally said to be in the shape of a bell. *Mount Méru*, and the seven stories, are represented in the shape of a trump by the divines of *Ceylon*, according to Mr. JOINVILLE's delineation in the seventh volume of the *Asiatic Researches*. The pyramid is equally subject to the same variations, the hips, or angles, being sometimes in the shape of a *cymatium*. As *Mount Méru* is also represented of a cylindrical form, the tombs of the *Thácur* are equally made in that shape, as that of *Sárnátha*. Sacrifices and offerings are never made in *Tibet*, without placing before the devotees a cone or pyramid, the image of *Mérú* and of the worldly *Linga*. *Bráhmens*, instead of either, make a cylinder

of earth, and for the same purpose. This they call the primeval *Linga;* which was represented in the west, and to this day in the *Dekhin*, by a cone, according to ARNOBIUS and other authors.

The steps, stories, and retreats are always [illegible] in *India:* but I was told, that it was considered as immaterial. The seven stories, however, are marked by lines, in a delineation of the worldly temple and tomb of BUDD'HA, in a large map of the world, accompanying the *Cshétra-samása*, a geographical treatise in my possession. This representation of the mountain of GOD struck me forcibly, and was the occasion of further inquiries into this subject. It is of the same shape with the pyramids of *Egypt:* the base only is a little shorter, with a small flat top, with a chapel in honour of BUDD'HA. The sides are smooth, as in the pyramids; but the seven stories are represented by lines, which brings it still nearer to the tower of *Babel*. The pyramids of *Egypt* are not all alike: some are in the shape of a cone; one with recesses is mentioned by DE NON, who notices also another with a circular base. The square base of this worldly temple is peculiar to the *Baudd'hists* of *Tibet;* for in *India* the *Bráhmens*, and the *Jainas*, always give it a circular form. In the representation of it in the *Cshétra-samása*, it is a square. Though the dimensions are much neglected, yet in all these monuments at *Benares*, the most modern, and of course the most perfect, are of a conical figure; the perpendicular section of which, through the center, is an equilateral triangle. There is always a small temple on the summit, except one near *Benares*, at a place called *Camow'y*. Such of these monuments as belong to the *Baudd'has* are called the

temples of BUDD'HA: they might also be called the temples of BALA or BALAS, one of the titles of BUDD'HA, but little known now, and more particularly so to the vulgar. The word BALAS, properly pronounced, sounds exactly like BELOS in *Greek*, and BELUS in *Latin*. May we not then reasonably suppose, that the temple and tomb of BELUS at *Babylon*, was precisely a similar monument, and calculated for the very same purpose.

On the summit of it was a chapel, dedicated to BELUS, according to HERODOTUS. DIODORUS, the *Sicilian*, says there were three; but this is immaterial: for BALAS is three and one. Besides, the temple of HERODOTUS probably consisted of three chapels. About the center of the tower, in the middle, was the tomb of BALAS, and near it, in the body of the pyramid also, another chapel, exactly as in the great pyramid of *Giza* in *Egypt*. It is propable, however, that the bones of BELUS were not deposited in the ostensible tomb, but were concealed in a secret vault, in some other part of the pyramid or tower. It appears then, that the pyramids were similar fabrics, and intended for the very same purpose. For the *Egyptians*, the *Phenicians* likewise, had their BELUS, as well as the *Babylonians* and *Hindus*: and this BELUS, it is probable, was originally the same through these different countries. In the eastern parts of *Bengal*, particularly toward the *Sunderbunds*, there is, almost in every village, a representation of this worldly temple, of earth with steps. The whole is neatly plastered with a whitish clay; and on stated festivals, the statue of some favourite deity is placed on the summit, in a small, but handsome portable temple. Some of these fabrics

are from five to twenty feet high, according to the circumstances and zeal of the villagers. These are considered as a representation of mount *Méru*; and, in the inscription of *Sárnáth*, the conical mount, near the sacred repository, is called *Méru*.

Like all the temples and tombs of BELUS in *India*, the pyramids had no opening whatever; except one or two. It is however pretty certain, that all the pyramids were not intended for the reception of the bones of BELUS. Many were probably intended for the burial of a very few exalted and sacred characters, like the grand *Lamas*, of *Tibet*, with a few others, who are always buried under pyramids: but these are acknowledged to be forms of BUDD'HA, though of an inferior rank. As the *Egyptians* concealed most carefully the real place where their BELUS was entombed, it is not unlikely that the great pyramid was only an ostensible one, and of course allowed to remain open. For we are told, that the body of him for whom it was intended, never was deposited there; or if deposited, it was not into the ostensible tomb, but into some secret place under the pyramid. The limbs of OSIRIS were buried separately, and on the very spot where ISIS found them: and he was torn into fourteen pieces; others say six-and-twenty. The general opinion is, that ISIS collected all the limbs in a coffin, like which she made many others, and presented them to several cities through *Egypt*; assuring privately every one, that they possessed the real one. It is supposed, that OSIRIS was entombed near *Memphis*, though the spot never was known.

The tower of *Babel* seems then to have been the wordly temple of the spirit of heaven, and the tomb

of his son, either the first man of the *Calpa*, or the most ancient king and legislator of the country.

There were four *Adams*, and four *Budd'has* also; and we are now under the fourth, according to the traditions of the *Muselmans*, and of the *Baudd'has*. ADAM's body was, at his own request, entombed in a cave or vault, called *Alconuz*, in a mountain in the center of the world; and of course the *Méru* of the *Hindus*, and represented by artificial hills, either of stone or earth, and of various shapes, like *Méru*.

His descendants removed to that holy mountain; the wicked offspring of CAIN were allowed only to dwell at the foot of it, whilst that of SETH were seated higher up, as far as the top; where they lived in great sanctity and purity of manners, every day worshipping GOD on the summit of the mountain, and visiting the body of ADAM in his vault, as the means of procuring the divine blessing.* This mountain, in the center of the earth, with seven steps or stories, or mount *Méru*, was really the mountain of GOD, the worldly temple of the spirit of heaven, and the tomb of his son. COINTUS of *Smyrna* says, that this holy mountain was depicted upon the shield of ACHILLES; and that on its summit resided the efficacy of *Sacti* of the world, or of the supreme being, towering to the skies: and he adds, that this most sacred place was very difficult of access.

The limbs, or bones, of this son of the spirit of heaven, PUENCU in *Chinese*, BUDD'HA, OSIRIS, DIONYSIUS, or ADAM, were dispersed all over the

* Anc. Univ. Hist. vol. I. &c.

world. ADAM's remains, after the flood, were divided among his posterity, and his *scull* fell to the share of SHEM, who deposited it in a vault on mount *Calvary*, near the holy hill of *Moriah* or *Moreh*. The inhabitants of *Ceylon* showed formerly one of his teeth; and they have now one of his tusks: for their last ADAM or BUDD'HA, was incarnate in the shape of an elephant; and ascended into heaven, from the summit of the peak of ADAM. *Muselmans*, who were settled in the *Peninsula*, and in that island, at a very early period, concluded, and not without some plausible ground, that this BUDD'HA must have been ADAM: and accordingly, *Persian* writers gravely inform us, that ADAM was banished to *Ceylon*, and thence translated into heaven, from the summit of the peak, which was denominated after him. ZARADES, ZOROADES or ZARAT was the name given, by the *Chaldeans*, to the eldest ZOROASTER, claimed equally by the *Persians*. Some say that BELUS taught the *Chaldeans* astronomy, whilst others insist, that it was ZARADES or ZOROASTER, whom several learned men consider as the same with MIZRAIM, the son of HAM. Be this as it may, the eldest ZARADES was the son of OROMAZES, the spirit of heaven, according to SUIDAS. Like ADAM, he directed that his bones should be carefully preserved: his precepts for a long time were complied with; and his relics, carefully and secretly entombed, like those of BALA or BUDD'HA, like the limbs of OSIRIS, and like those of BACCHUS at *Delphi*, became an object of worship. The eldest ZOROASTER, called ZARADES, ZOROADES and ZARATES by the *Chaldeans*, is probably the same with BELUS and the SAURID of Arabian writers: and the Goddess ZARETIS was probably his consort. Several learned oriental writers insist that ZOROADES, or ZOROASTER assisted at

the building of the tower of *Babel;* and that he is the same with ZOHAC or NIMROD, and that under the name of SAURID he built the great pyramid in *Egypt.* The *Parsis* in *India* say, that he was a native of *China;* but I suppose that they originally meant *Bactria,* seemingly the native country of the *Chînas,* according to the *Purán'as,* and the earliest *Persian* and *Arabian* authors, who say that formerly the country about *Samarcand* was called *Chinistan,* and its inhabitants *Chínas* *.

II. The three peaks of *Méru* are, one of gold, the other of silver, and the third of iron, stone or earth, which is considered as the same. Thus, the iron age is generally called the age of stone or earth in *India.* In the west, mankind was produced from stones, thrown by DEUCALION and PYRRHA behind their backs, in the beginning of the iron age; and from them sprang the present stony or stone-hearted race.

In consequence of this, some powerful princes are declared, in the *Purán'as* and other books, to have erected three mountains, of gold, silver, and stone; or three pyramids or conical hills, like the three peaks of *Méru,* though the materials they were built with were only stone or clay. POLYÆNUS has given us the names of these three peaks, *Menon, Candaské,* and *Corasibé;* which, however distorted and disfigured, may be still traced back to their original standard. For this purpose let us suppose, that a traveller asked a *Hindu* the names of these three peaks, the *Hindu* probably answered *Mana, Cun't'hác'hya, Cailásópi,* or literally in *English,* MANA,

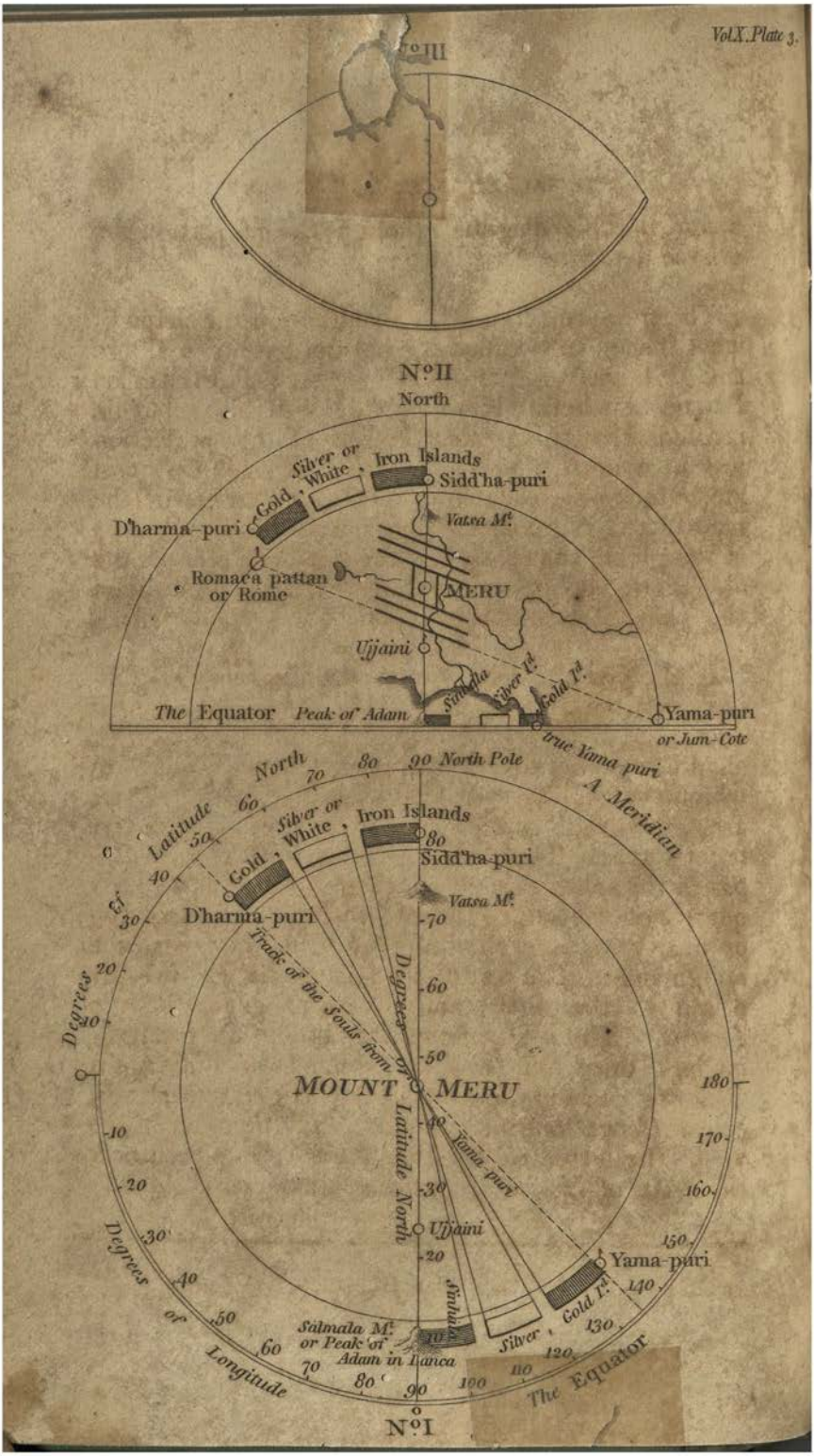
* D'HERBELOT's Biblioth. Orient. voce Tarikh and Tabari. Sir W. OUSELEY's Translat. of Ebn Haucal in the Appendix.

CUN'T'HA' *thus called,* CAILA'SA *also.* The first peak, it is true, is not known under that name; but it is described as such, and this appears to be its real name. Upon it BRAHMA' resides, and his seat is called *Brahmá-puri,* or the town of BRAHMA': it is also *Mana-puri,* the town of *Mana,* or of his heart, or the delight of his heart, near the famous lake of *Mana* or *Mánasa,* the waters of which, proceeding from heaven, are the delight of his heart likewise. They are otherwise said to proceed from his heart, and indeed every thing there is from his heart. The obvious meaning of *Mana* is *mind, (mens,)* but it is always rendered here *heart,* because the *mind* proceeds from the *heart,* according to the *Hindus,* who even are able to trace its track through the body to the head. The radical name of *Vai-Cun't'ha* is *Cun't'ha,* an ideot. The name of VISHNU's mother, in one of his incarnations, during the fifth *Manwantara,* was CUN'T'HA or the ideot; and as she was very much so, she was called VI CUN'T'HA VISHNU, since that time, is surnamed VAI CUN'T'HA: and after him, the peak on which he resides is denominated likewise. In *Cailásópi, api* signifies also. This *Tri-cútádri,* or mountain with three summits, is declared to be the lord of mountains; and of course the other *Tri-coryphean* hills, for there are many, are considered as inferior to it. The next in rank is the *three-peak-land* in the N. W. emphatically called the WHITE island, the *island* of the MOON, a *celestial earth* or *region,* a *terrestrial heaven* or *paradise.*

The next to this is the *Tri-cú'ta* mountain in the south-east, including the peninsula of *Málácá, Sumátrá,* and *Ceylon.* These two *Tri-cútádris* are declared to correspond to each other, in their respective quarters, and their *Téja, Cirn'n'a,* or splendor, are the

constant theme of the *Paurán'ics* and other *Hindu* writers. These two *Tri-cú'tas*, or three-peaked-islands may probably be the two islands of *Cerne*, east and west, of the ancients. When speaking in general terms, the *Paurán'ics* sometimes place them, one in the east, and the other in the west. But numerous and explicit passages show, that they are situated in the N. W. and S. E. quarters of the old continent. There are however, some few passages, which place them north and south of *Méru;* and *Lancá* is now considered as situated on the equator, exactly to the south of *Ujjayiní, Méru*, and opposite to the island of the moon. The last assigned situation was the first I hit upon, on my first acquaintance with the *Purán'as*, and perplexed me very much; as the *Pandits*, I was acquainted with, insisted that the WHITE island, one of the peaks of the western *Tri-cú'ta*, was in the N. W. quarter, that is to say, it occupied the whole space between the N. W. and N. points: and that likewise the eastern *Tri-cú'tâdri* was between the S. and S. E. points. Unfortunately, they could not then produce the necessary vouchers from their sacred books; but in the mean time, they exhibited the accompanying map of *Jambu*, in order to illustrate the subject.

In the plate, the map of *Jambu* is represented under three different projections. The first is according to the ideas of the *Paurán'ics*, in which one half of the equator is obviously combined with another half of the meridian, on the plain of which the map is projected. I have marked the degrees of longitude upon the equator, and the degrees of latitude north, upon an arch of the first meridian. No notice is ever taken of these particulars by the *Paurán'ics;* but a little reflection will show the original


No III
No II
North
Gold
Silver or White
Iron Islands
Sidd'ha-puri
D'harma-puri
Vatsa Mt.
Romaca pattan or Rome
MERU
Ujjaini
Sinhala
Silver Id.
Gold Id.
The Equator
Peak of Adam
Yama-puri or Jum-Cote
true Yama puri
A Meridian
North Pole
Degrees of Latitude
Degrees of Longitude
Track of the Souls from
Degrees of Latitude North
MOUNT MERU
Yama-puri
Ujjaini
Salmala Mt. or Peak of Adam in Lanca
The Equator
No I

design of this diagram, though the projection be ever so disfigured *.

The true projection of it should be in the shape of what the ancients called the bottom part of a sling: and this was admitted by DIONYSIUS PERIEGETES. POSIDONIUS before him admitted of it also: but he insisted, that the greatest length of this projection was in a north and south direction. This sort of projection is represented in the third number of the same plate. Number II. represents the same portion of the globe, that is to say, the northern part of the old continent, as projected in the usual form, upon the plain of the first meridian.

In the first and second numbers, the two *Tri-cúṭà-dris*, or islands, abounding with *Cirńńa* or resplendence, are represented diametrically opposite, with all due symmetrical arrangement in every part, to which the *Hindus* will always sacrifice truth. There are, however, some general outlines, which, are strictly true. There are really three islands, or *dwí-pas* in the south east, and as many in the north west quarter of the old continent, corresponding exactly, or nearly so, to each other; and they have also the same names. The rest of the superstructure owes its origin to the fertile and inventive genius of the *Hindus*. The idea, however, is by no means a modern one; nor was it confined to *India:* for ancient writers in the west acknowledged two islands, called *Cerne*, one in the east, and the other in the west: the latter, called also *Cyrene*, was placed near the straits of *Hercules;* and was said to consist equally

* Plate III.

of three islands. The eastern *Cerne*, it is true, was said to be near the eastern shores of *Africa*. This mistaken notion arose, through the information of the *Hindus*, who will have it that the *dwípa* of *Lancá* really joins the shores of *Sanc'ha*, *Zeng*, or *Africa*. The *Nubian* geographer adopted this idea, as well as *Arabian* writers in general.

The Gods are represented as travelling from one *Tri-cúta* to the other; and the *grand depot* for souls after death, is at *Yama-puri*, in the *Peninsula* of *Málàcá*; from which, on certain days fixed for that purpose, they set off together for *D'harma-puri* in the north west, which they reach after a painful march of twelve months.

These three islands in the south east, are in general called *Lancá*; and in every one of them is supposed to be a city called a *Lancá-puri*, and there is actually a place of that name in *Sumatra*, according to Mr. MARSDEN. The walls of these three cities are of the same metal with the soil of their respective islands: of course the walls and palaces of *Lancá-puri* in the *Gold-Island*, are of that metal; and of silver in the *Silver-Island*. In the island of iron, brass, stone, or clay, the walls are of these materials: but more generally they are said to be either of iron or brass. The *Gold-Island*, or *Suvarn'a*, is also called *Maha-Lancá* and *Má-Lancá*; from which is probably derived its modern name of *Málácá*; which is also called *Malác'hya* in the *Dévi-purán'a*.

These islands were well known to the ancients, under the appellations of *Chryse*, *Argyrea*, and *Taprobané*. That of *Taprobané*, though generally understood of *Ceylon*, was also extended to the three islands; for

STEPHANUS of *Byzantium* says, that *Argyrea*, the *Silver-Island*, or *Sumatra*, made part of *Taprobané*, and very properly too: for *Taprobané* is obviously derived from the *Hindi Tápu-Rávana*, the island, or islands of RA'VANA, who was the lord of them, and whose name, in the spoken dialects, particularly in the *Dekhin*, is always pronounced RA'BAN. Their *Sanscrit* names are *Canchana* or the *Gold-Island; Rajata* the silver one, and *Sinhalà* is *Ceylon*. On the latter the epithet of *Iron-Island* is never bestowed in any book which I have seen: but it is understood as a matter of course: it was called also the brass country by PTOLEMY, though strangely misplaced by him.

From various documents, through different channels, he has introduced *twice* in his map of that country, this *Tri-cútádri*, *first*, as three islands or *Peninsulas*, and *also* as three countries on the mainland, under the names of gold, silver, and brass countries. Mr. DANVILLE has proved that the *Peninsula* of *Málácá*, with most of the places belonging to it, are *twice* repeated, and made contiguous by him.

In the *Gold-Island*, or *Má-Lancá*, is the abode of *Yama*, called *Yama-puri*, or in the spoken dialects *Jam-cote*, a place well known to *Arabian* and *Persian* writers. It is also called *Lancá-purí*, *Lancá-nagara*, the town of *Lancá;* and the straits of *Málácá* are called, in the *Puráńas*, *Lancá-dwára*, or the gates of *Lancá**, as we shall see in the course of this work. CANCA is another name of YAMA or PLUTO; and as the place of his abode is in *Málancá*, according to the

* *Scanda-purána*, section of TAPI-C'HAND'A.

Purán'as, the *Lancá-dwára* or gates of *Lancá*, the straits of *Mâlácá* might be called also with propriety the gates of CANCA, PLUTO, or *Canca-dwára*. This denomination is never used now by the *Paurán'ics;* but there is no doubt, that it was so formerly; for the *Cancador* of ALI-COSHGI, and other early *Muselman* writers, is obviously derived from *Canca-dwára*, CANCA's door or gate. It is true, that they make a town of it, which they call also more correctly *Cancánor* for *Cancá-núr*, which last is acknowledged to be the same with *Canca nagara*, the town of CANCA: and in the *Dekhin* they always say *nur* or *nuru*, instead of *nagar*. This town is obviously the same, which is called *Cocco-nagara* or *Conco-nagara* by PTOLEMY. The country of CANCA is *Cancades'a* in *Sanscrit;* hence *Muselman* writers call it also *Gung-diz*.

Cancapuri or *Canca nagara* is then the same with *Yama-puri* or *Jamcote*, called also in the *Purán'as Mahá-Lancá-puri*, or *Má-Lancá:* and it is probably the same with that called *Balanca* by PTOLEMY, and placed by him in Long. 162° and in 4° 40′ Lat. North. It appears, however, that *Muselman* writers understood by it the town of *Saba* or *Zaba:* for *Yama-puri* or *Jam-cote* is a mythological city and never existed.

We observed before that PTOLEMY has introduced into his map the golden country, island or peninsula, not only twice; but that he has likewise introduced twice, most of the places belonging to that country. Accordingly *Conco nagara* is again noticed under the name of *Coccoro nagara*, or *Cocco nagara;* from which *Muselman* writers have made *Caracor* for *Canca-rai-ghur*, the house or place of abode of CANCA-RA'JA' or YAMA: but they consider it as the same with *Cancanor*. This town

they call also *Canacor*, which is some place in the *Gangetic* provinces: but I have shown before, that *Canacor* or *Cancar*, was the capital city of the country of *Gancar-deha*, or of the *Gangaridæ* in *Bengal*.

Jum-cote or *Lancá-puri*, which D'HERBELOT writes *Giamcout*, they place, with the *Hindus*, in the center of the *Peninsula*, in five degrees of Lat. North, and in Long. 176 or 175, according to ABUL-FAZIL and others; and PTOLEMY places *Balonca*, or *Má-Lancá-puri* in Lat. 4° 40′ North, and in Long. 162. The Longitude of *Lancá* or *Má-Lancá* may be ascertained from the *Puránas*; a circumstance very unusual. *Yama-puri* is declared in these sacred books to be the general rendezvous of the departed from all parts of the world, and from which they proceed in a body with a proper guard, composed of the servants of YAMA, to *D'harma-puri*, which I shall show hereafter to be the purgatory of ST. PATRICK in *Hiran'ya* or *Suvarn'eya*, the gold island in the west. The days and distances are accurately described, which summed up amount to 81,554 *Yójanas*.* The breadth of the world is 100,000 *Yójanas*, equal to 180° of longitude: and these 81,554 *Yójanas* answer of course to 146° 48′, which subtracted from 180 degrees, leave 33; the half of which 16° 30′ is the longitude of *Dharma-puri*, and added to 146° 50′ will place *Má-Lancá* or *Jum-cote* in long. 162° 20′. For these two places are at the furthermost extremities of the earth, which forms a perfect circle, surrounded by a sea, every where of the same breadth. This singular route of the departed will be the subject of a separate paragraph. It passes through *India*, in

* *Ganes'a Purán'a.*

the direction of the first range of snowy mountains. The *Pandits*, whom ABUL-FAZIL consulted, placed *Cancador* 1265 *Yójanas* from *Lancá*, or the peak of ADAM, which is in 90° of longitude, according to them. *Yama-puri* is accordingly 1205$\frac{5}{6}$ *Yójanas* from *Lancá;* some reckon 1242, which will place *Yama-puri* in long. 178°. 22′.

The commentator on the *Súrya-Siddhánta*, has reduced that distance very much; for he says that *Lancá*, or the three islands, occupy a space of 30 degrees along the equator; and this will bring their assumed longitude of the easternmost shores of *Má-Lancá* nearer to its real one.

As PTOLEMY places *Má-Lancá-puri* in the same longitude with the *Pauranics*, he must have used the same *data*, and which he had probably received from the *Hindus* whom he conversed with at *Alexandria*. *Má-Lancá* being, according to the *Puránics*, in the center of the *Peninsula*, it must be of course in about five degrees of Latitude North: and there it is placed by ABUL-FAZIL: and in 4° 20′ by PTOLEMY. *Má Lancá* is called in the *Puránas Yamala* and *Malaya;* which last denomination it still retains. It is styled also *Canchana-páda*, or with the golden skirts. It may be translated the country of the golden feet, a title assumed by the Emperors of *Ava*, and other Kings of that part of the world: and the *Malayan* breeze is as famous in the east, as the *Sabæan* in the west, and its capital was also called *Saba* or *Zaba*.

In the beginning of the *Brahmánda-puráṇa*, it is declared, that the strong hold of YAMA in *Tri-cúta*, that is to say the *Peninsula* of *Malaca*, is 100 *Yójanas* long, and 30 broad, which is sufficiently accurate.

PTOLEMY mentions there a place called *Malaioucolon*, probably from the *Sanscrit Malaya-cúlam*, which implies a place on the borders or shores of *Malaya:* the same is called *Maletur* by MARCO-POLO; *Malaya-tir* and *Malaya-cúlam* are synonymous. *Perimula* in PTOLEMY, I suppose to be derived from the *Sanscrit Pari-Malaya*, which implies the same thing. For it is probable, that they were acquainted only with the *tíram*, *tír* or *culam* of the *Peninsula:* and *Canchana-páda* may also signify the foot, skirts of the golden mountain, or *Peninsula.*

The next island is *Sumatra*; called in the *Puránas Rajata*, or silver island, the *Argyre* of the western geographers. In the *Vrihat-cátha* it is called *Naircéla* or *Nalicéra* and *Srímat*, or the fortunate, and synonymous with *Srímatra.*

That famous island is called now *Sumatra*, and by former *European* travellers *Symotta.* In the same book, and in the *Hitópadesa*, it is called *Carpura*, or camphire island. In the spoken dialects, that word is pronounced *Cápur* and *Cáfur.* MARCO-POLO gives the name of *Fanfur* to one of its provinces, probably for *Canfur* or *Campar*, as it is now called. A beautiful lake on the island, is mentioned in the *Hitópadesa* under the name of *Padma-nilaya*, or the abode of PADMA'-DE'VI.

It is also called *Mandara* in the *Puránas:* and as it is represented as a most delightful country, it may be denominated *Su-Mandara;* and it was called *Samander* by former geographers. But it seems, that this appellation is derived from *Samander* in the spoken dialects of *India*, from the *Sanscrit Samudra*, which signifies the ocean. The author of the *Periplus* mentions an island near the *Ganges* called *Oceanis;* and

EL-EDRISSI says that the island of *Samandar* is near the *Ganges*. Probably the author of the *Periplus* confounded it with *Ságara* island, a name of the same import, at the mouth of the *Ganges* and called also *Oceanis* by DIODORUS the *Sicilian*. The context, however of this author, and of more modern geographers, show that it cannot be the same island. SALMASIUS and others improperly laugh at the idea of an island at sea being called *Oceanis*. This *Oceanis* was probably the place of abode of old SAMUDRA, the old man of the sea, often mentioned in romances in the east.

The word *Samudra*, or *Samundur*, are pronounced, *Sumundu*, and *Mundu* in the dialects of *Ceylon*; and there is an island of that name mentioned by ancient geographers in the eastern seas, and supposed by them to be the same with *Taprobanè* or *Ceylon*; but STEPHANUS of *Byzantium* says that the silver island made part of *Taprobanè*, which is really the case. It is also called by them *Palai-Simundu*, which I take to be a corruption from *Pulo-Simundu*, *Pulo-Symotta*, the *island* of *Simundu*, or *Symotta*. The description of that island, under the name of *Simondu*, does by no means agree with *Ceylon*: but is easily reconciled with *Sumatra*, though we know but little of the interior parts.

The large lake called *Megisba*, with the metropolis, does not exist in *Ceylon*, but is probably that extensive lake to the south of *Menangcabow*, mentioned by Mr. MARSDEN in his map of *Sumatra*, from which several large rivers seem to issue. The harbour of *Hippuros* or *Ipporus* in *Pulo-Simundu* is called *Aypoor* by DANVILLE, and *Ippu* by Mr. MARSDEN from the *Sanscrit* and *Hindi* *I-pura* or *I-pu*, and in a derivative from *Ai pura*, the town of the goddess I or

BHAVA'NÍ. From this lake issues the river *Andraguerii* or *Indergeree*, in *Sanscrit Indra-giri;* because its source is in the *giri*, or mountain of INDRA, or *Maghabá;* from whom probably the lake in the plains below was denominated *Maghabá* or *Megisbá*, according to PLINY, and *Padmá-nilaya* or the place of abode of PADMA'-DE'VÍ the consort of VISHNU, in the *Hitopades'a.*

From this lake issued two rivers, according to PLINY; one called *Palesimundus* flowed towards the south, and towards a town of the same name (perhaps the modern *Palembang*) which was the metropolis of the island, and had a famous harbour. The river divided then into three streams, the smallest of which was five furlongs broad, and the largest two miles nearly. Thus I translate this passage of PLINY: for it is impossible that three such large arms of a river should fall into a harbour. According to Mr. MARSDEN, this lake communicates with the river of *Palembang:* for, says he, the inhabitants avail themselves of this lake in transporting their goods to, and from *Palembang.**

The other river, toward the north, and supposed to issue from that lake, was called *Cydara;* probably because it flowed through the country of *Ru* or *Aru*, called *Dàru* by former *European* travellers: the capital of which, on its banks, was probably called *Cota-Ru*, or the town and fort of *Ru.* This is the largest river in the island, and of course its source far remote into the interior parts of the country. The river *Siac* seems to be a branch of it: and the *Campar* is supposed to communicate with the river *Indra-giri.* Op-

* History of *Sumatra*, p. 9.

posite to this, toward the west, another river flows from the mountains of *Indra-giri*, and is called *Andrapour* or *Indrapour* from the *Sanscrit Indra-pura:* and I believe that the town is the same which is called *Andra-Simundu* by PTOLEMY, and foisted into *Ceylon* by him, on a supposition that it was the same island with *Pulo-Simundu;* and I believe that this is not the only place in *Taprobane*, that belongs to *Pulo-Simundu*. The mountains of INDRA, or *Maghabá* in the island of *Sumatra*, are mentioned in the *Vřihat-cat'há*, under the name of *Baláhaca*, which is synonymous with *Mégha*, from its summit being capped with clouds: and INDRA, who presides over rain, resides above the clouds: hence he is called ME'GHAVA'HANA, ME'GHABA'HANA, and in conversation ME'GHABA'N, or the cloud borne. The other mountains in *Sumatra*, mentioned in the *Vřihat-cat'há*, are *Mainácа Vřishabha*, and *Chacra*. Upon these four mountains, as many gods are, in the same book, declared to reside, and to travel occasionally in their self-moving cars to the *White Island* in the west, in order to pay their respects to VISHNU, and his consort ABDHITANAYA', or the daughter of the *Ocean*. *Nâricéla*, another name for this island, implies its abounding with cocoa-nut trees, the leaves of which being agitated by the winds strike against each other, and seem to repeat the words *Boc-boc* or *Vac-vac:* or the continual noise which they make is compared by the *Hindus* to what is called in *Hindi Boc-boc* or constant chattering. *Sumatra* is then the island of *Boc-boc*, *Vac-vac* or *Wac-wac* of *Arabian* authors; who say that the leaves of these trees striking against each other seem to repeat the word *Wac*.

Sumatra appears to me to be the same island, in which JAMBULUS is supposed to have resided seven years, and from which he went to *Palibothra*. The

inhabitants, says he, have two tongues, or languages; their own first; and probably the *Malay* was the other, which they spoke fluently, but I suppose only in the districts bordering upon the sea. JAMBULUS takes notice, that this island abounded with hot springs, which is true of *Sumatra*, but not of *Ceylon*. They had also an alphabet, consisting of twenty-eight letters, divided into seven classes, each of four letters. There were seven original characters, which, after undergoing four different variations each, constituted these seven classes. They wrote also from top to bottom: and that this was the case formerly in *Sumatra* is my opinion.* For the manners of the natives of the *Philippine* islands, correspond in so many striking particulars, with those of the *Sumatrans*† that no doubt can be entertained, says Mr. MARSDEN, if not of a sameness of origin, at least of an intercourse and connexion, in former times, which no longer exists. They used to write from top to bottom, till the *Spaniards* taught them to write from left to right. The *Tagala* alphabet in these islands, has certainly great affinity with those of *Sumatra*.

The two alphabets of the *Sumatrans* consist only, one of twenty-three, and the other of nineteen letters: but it is probable that there were two sorts of them formerly, as in *India*, and which were originally the same. One was used by the more civilized

* Dr. LEYDEN, who had been lately engaged in inquiries concerning the tribes inhabiting the islands of the eastern *Archipelago*, partly confirms this conjecture by the information, that the mode of writing, practised by one of the tribes in *Sumatra* (the *Battas*), is perpendicular: but instead of commencing at the top of the line, the writing begins at the bottom. MARSDEN's *Batta* alphabet is stated to be correct, provided the plate be turned in a perpendicular instead of a horizontal direction. H. T. C.

† History of *Sumatra*, p. 255.

and learned classes, and at court; the other was current among the lower classes, whose poor and barren dialect had fewer sounds to express. Be this as it may, the elements of their alphabets have an obvious affinity with those of the *Sanscrit*. The *Sanscrit* alphabet, after striking off the double letters, and such as are used to express sounds peculiar to that language, has a surprising affinity with the old alphabets used in *Europe;* and they seem to have been originally the same. This subject I intend to resume hereafter. The Emperors of *Sumatra*, when endeavouring to introduce civilization into their country, opened an intercourse with *India*, but more particularly with the kingdom of *Magad'ha*, and *Palibothra;* for as Mr. MARSDEN judiciously observes*, the *Malay* language has received no improvement from the dialects of the *Peninsula* in *India*. All the *Hindi* and *Sanscrit* words in that language are such as were in use at the court of the Emperors of *India*, residing in *Bahar*, and among the better sort of the inhabitants of that country.

The Kings of *Sumatra* call themselves *Mahá-rájas* to this day; their prime ministers are called *Mantrí*:† which are both *Sanscrit* terms. In their language *Dewa* and *Dewáta* are derived from *Déva* and *Dévatá* in *Sanscrit;* the first of which signifies God, and the other a deity. Among the names of places in *Sumatra*, very few are *Sanscrit*, but the following are undoubtedly such; viz. *Indragiri*, *Indrapura*, *Ipura* or *Aipura*, *Sinha-pura*, *Singá-pour*, or *Sincápour*.

JAMBULUS says that this tract of islands, or *Lancá*, consisted of seven principal ones: and to this day in

* As. Res. v. iv. p. 233.

† Hist. of *Sumatra*, p. 285, and from *Mantri* the *Portuguese* made *Mandarin*.

the *Peninsula, Lancá* is often called *Yail-Lancá* or the seven *Lancás;* because it consisted of seven islands. This information I owe to Mr. DUNCAN, Governor of *Bombay.* From *Yail-Lancá* former travellers made *Ylanca.*

Sumatra is perhaps the island of *Sabalá* mentioned in one of the *Puráńas;* and it is the same which is called *Saivalá* or *Saibalá* in the *Váyu puráńa,* section of the earth, and represented as a mountainous region in the skirts of *Bhadrás'va,* or that part of the old continent between the N. E. and S. E. quarters. From *Saibalá,* APULEIUS and ARISTOTLE* probably made *Phebol* or *Psebol,* as some learned men are inclined to read it. The former says, that in the eastern seas, there are two large islands, *Taprobane* and *Phebol:* ARISTOTLE places the latter opposite to *Arabia,* and we have seen before that the *Puráńics, Arabian* and *Persian* authors insist, that *Sumatra* is close to the continent of *Africa.* The island of *Sabala* is probably the *Samil* or *Shamel* of EL-EDRISSI and other eastern geographers, who call it also *Sabil.* The country of *Cephala* is noticed by former *European* travellers; and in the year 1543, adventurers from that country plundered and ravaged part of the island of *Sumatra.*†

III. Let us now pass to the third island, or *Sinhala,* now *Ceylon.* Its *Sanscrit* name is a derivative form from *Sinha,* a lion, and it was given to it on account of its being inhabited by *Sinhalas,* or the

* ARISTOT. de Mundo.

† Hist. of *Sumatra,* p. 6.

offspring of a lion.* It is, however, more generally called *Lancá* in the *Puráńas*, and is represented there as the country of *Rávana*, or *Rában*, the brother of *Cuvéra*; and both were born at the extremities of the world, in the N. W. As he was contemporary with RA'MACHANDRA, if there ever was such a being, he must have lived about 1800 years before CHRIST. The wars of RA'VANA in *Lancá*, and the adjacent countries, are famous all over *India*, and make an era in the history of *Ceylon*. Traditionary legends in that island say, that in consequence of this bloody war, the island was depopulated, and remained in that state for 1845 years, being only inhabited by *Daityas*, or rather savage tribes. *Ceylon* was afterwards called *Saláva*, or *Sálavam* according to F. BARTHOLOMEO, from the *Sáleyas*, a certain tribe in *India*, called also in the *Puráńas Sálavas*. The famous peak of *Adam* was called *Sálmala*, or the mountain of *Sála*. It is mentioned in the commentary on the *Súrya-Sidd'hanta*; in which it is said, that MAYA the offspring of the Sun, by the daughter of the divine *Twashtá* in the west," came from *Rómaca-nagara*, or *Rome* to the mountain of *Sálmala* in *Lancá*, to make *tapasya* in honour of the sun, in order to obtain astronomical knowledge from him. Another name for it is *Sámánala* from *Saumya-Nala* another son of *Twashtá*, who built RA'MA's bridge. *Twashtá* is the chief engineer of the gods, and his grand-son MAYA of the *Daityas*.

The appellation of *Salica*, or *Sálice*, as it was called by ancient geograghers of the second century, is also a regular derivative form in *Sanscrit*, from *Sáli* or *Sális*: this denomination was unknown to PLINY. According to F. BARTHOLOMEO, and former

* As. Res. v. vii. p. 48.

travellers, *Ceylon* was called *Ilam*, and *Ila-nàd*, *Ila-nár*; the country of *Ilá*, which signifies the earth in general. *Tra-nád*, or *Tranáté*, another name for it, signifies the three countries, meaning I suppose the three islands of *Lancá*.

The *Hindus* reckon the longitude from the meridian of *Lancá*, passing through the peak of *Sálmala*, the place of worship called *Rámeswara*, (or dedicated to *Iswara*, with the title of *Ráma*), *Avanti* or *Ujjain*, *Méru*, and the mountain of *Vatsa* in *Curu* or *Siberia*, which last is most probably an imaginary place in that country. The place of *Ráma* was called *Arima* by *Muselman* writers; and they said that it was under the equator, and exactly half way between the straits of *Alexander* or *Malàca*, and those of *Hercules* or *Gades* in the west: and they gave the name of *Gadir* or *Gades* to these two straits, both leading into two vast *Mediterranean* seas; and through *Arima* the *Hindus*, and even some *Arabian* authors, it is said, made their first meridian to pass. Ali-Coshgi a *Persian* astronomer, who lived about 350 years ago, says, that in his time some *Hindus* placed their first meridian at *Cancadora*, or *Jum-cote* in the east.* I believe that some of them did so formerly, and this of course occasioned afterwards some confusion. Their first meridian then passed through the eastern *Cerne*, and the last through the western one, the several islands of which tract were the original islands of the blessed. When this mode of reckoning was altered, the meridian was placed in the middle of the world, yet it still passed throuh the eastern *Cerne;* though through a different part of it. This

* Abulfedæ Chorasmiæ, &c. descriptio. int. Geograph. min. vol. iii. p. 9.

induced them also to bring one extremity of the western *Cerne* under the same meridian, probably for the sake of symmetry, which was certainly a sufficient reason with them. Thus the iron peaks of the two *Tri-cúṭádris* fell in the same meridian, and the northern one might be about *Nova-Zembla.*

This made me suppose, on my first acquaintance with the *Puráńas*, that the *White Island* was an *Utopian* land, and I resolved of course to give myself no further trouble about it. The ingenious Mr. BAILLY would not have failed, to have considered this projection of the northern *Tri-cúṭa*, as a confirmation of his own system. There is another instance of the fondness of the *Hindus* for a symmetrical arrangement, and noticed by STRABO, as we have seen in the first part. The mountains to the north of *India* are in an oblique direction, and the first range of the snowy mountains is in the same line with *Romacapattan* or *Rome*, and *Yamapuri* or *Jumcote*, as placed by the *Hindus*, one at the furthest extremities of the west, and the other in the same manner toward the east, as represented in the second number of the accompanying plate. But as this oblique direction of the mountains to the north of *India*, does not look so well in the mode of projection adopted by the *Hindus*, they have represented them in a parallel direction with the equator; and with them *Jumcote* and *Rome*. STRABO highly reprobates that alteration in the direction of the mountains to the north of *India;* and which in his time, had been adopted by geopraphers in the west.

The two *Gadirs*, called the eastern and western gates, by *Arab* and *Persian* authors, are in an oblique direction, and may be called the terrestrial gates:

for in heaven there are also two gateways, one in the west in the tropic of *Cancer* and the other in the east in the other tropic. These were called the gates of the sun; the southern one was denominated the water gate, and the fire gate was in the north. The souls of the departed ascend through one gate, and those who are to be born again descend through the other, according to western mythologists. The *Hindus* have also two roads, one in the north or left, and the other in the south. Those who follow the left path, ascend through the northern road; and those, who follow the right one, ascend through the southern path.

III.

On the LANGUAGES *and* LITERATURE *of the* INDO-CHINESE NATIONS.

BY J. LEYDEN, M. D.

THE inhabitants of the regions which lie between *India* and *China*, and the greater part of the islanders of the eastern sea, though divided into numerous tribes, and equally dissimilar in their languages and manners, may yet with propriety be characterized by the term *Indo-Chinese*. Situated between *India* and *China*, each of which proudly styles itself the most ancient among the nations of the earth, they have contented themselves with more modest claims to antiquity, and professed to borrow from one or other of their neighbours the principal features of their religion, laws and manners. The different periods, however, at which these were adopted in different countries, the various degrees of civilization, and the pre-existing habits on which they were engrafted, have produced a diversity of national characteristics, by which they are not only distinguished from the *Indian* and *Chinese* nations, but also from one another, notwithstanding their common mixed origin.

The intercourse of *Europeans* with the *Indo-Chinese* nations, though, for the first two centuries after the arrival of the *Portuguese* in the east, scarcely inferior to that which was carried on with *India* or *China*, was not of such a kind as to furnish us with a very accurate or extensive knowledge of their laws, manners or literature; and for more than a century it has been rather declining than increasing. Neither, since our

late rapid acquisitions in *Indian* languages and literature, have we obtained any important accessions to our information in this quarter; though both political and literary reasons seem to require them.

The materials of this imperfect sketch were chiefly collected in the course of a voyage, which the state of my health caused me to take to the eastern isles, in 1805, during which I resided some time at *Penang*, and visted *Achi*, with some other places on the coast of *Sumatra* and the *Malayan* peninsula. Cultivating an intercourse with a variety of individuals of different eastern tribes, I availed myself of the facilities which the situation presented, to correct the vague ideas which I had previously entertained, concerning their languages, literature and the filiation of their tribes. Though my information was chiefly collected from native sources, yet it sometimes happened, that these were not exactly such as I should have preferred, had better been attainable; and some times too, from the indifferent state of my health and other causes, I was no table to avail myself of these sources of information to the extent I could have wished. Feeling myself equally embarrassed by the extent of the subject, the difficulty of the research, and, perhaps I may add, in some instances, by the novelty of the investigation, I should have hesitated to lay before the Asiatic Society these imperfect results, had I had any immediate prospect of pursuing the discusssion. I do not however despair of being able, at no very distant period, to offer some more minute and correct views of several of the subjects treated here in a cursory manner; and, at all events, I trust this attempt to introduce order and arrangement into a subject at once so extensive and intricate, and to disentangle it from a degree of confusion which seemed almost in-

extricable, may not be altogether without its use; but may, even where I have failed, serve to point out the proper method of investigation.

The *Indo-Chinese* nations, at a very early period, seem to have generally embraced the system of BUDD'HA. From the want of original historical documents, we can only conjecture the period at which this event took place, in the different regions over which it has extended; but at present it is chiefly confined to the continent. The coasts of the *Malayan* peninsula, and of the greater part of the eastern isles, are chiefly occupied by the *Moslems*. The original inhabitants, therefore, being for the most part confined to the interior of these islands, are still very imperfectly known to *Europeans*; so that it is often impossible to determine, whether their religious institutions are most connected with the tenets of BRAHMA or BUDD'HA, and often to reduce them to any known system. From the names and epithets, however, of some of their deities, even as given in the vulgar and incurious manner of common navigators, it is often easy to discover their connexion with the grand features of *Hindu* superstition; but our notices concerning them are generally too scanty, and our narratives too erroneous, to enable us to classify them with absolute certainty. Such is the difference of oriental and *European* manners, that the simplest narrator is apt to mingle conjecture with observation; while an absurd affectation of superior sagacity and a disdain of vulgar superstitions and prejudices, often prevent those who have had the opportunity of observation, from detailing the most useful pieces of information, or induce them to reject, as anile and useless fables, the mythological narratives which would enable us to determine the origin of a nation or a tribe.

With the exception of the *Malays*, and perhaps some rude tribes of mountaineers, the nations who occupy the countries which extend from *India* to *China*, profess only one religion, and adhere almost solely to the system of BUDD'HA. In so vast an extent of country some diversity of local institutions is always to be expected; but the spirit of the system and its influence on the manners of the people, in the same state of civilization, is essentially the same from *Chatigan* to *China*. This system in its grand features identifies itself with that which prevails in *Nepal*, *Bután*, and *Tibét*, and has extended itself over the immense regions of *Chin*, *Cham*, and *Japuén*, or *China*, *Tartary*, and *Japan*. Though it does not appear that all the nations who occupy this prodigious extent of territory employ the same learned language in the preservation of their sacred books and religious tracts, yet this is the case with the *Indo-Chinese* nations, who, with the *Singhalese*, or inhabitants of *Ceylon*, uniformly employ the *Bàli* or *Pali*, in the sacred compositions of the *Budd'hist* sect. This language does not exist as a vernacular tongue, but is the language of religion, learning, and science, and appears to have exerted an influence over the vernacular languages of the *Indo-Chinese* nations, similar to that which the *Sanscrit* has exhibited among the popular languages of *Hindostan* and *Dek'hin*.

The *Malayu* language, and the more original languages of the eastern isles, seem in their original formation, to have been polysyllabic, like *Sanscrit*, *Pali*, and the spoken dialects of *India*. The modifications which these languages have received from a foreign source, seem for the most part, to have been effected, rather by the immediate agency of *San-*

scrit than of *Pali;* though the influence of this latter is not to be entirely excluded. But several of them have been a second time modified, by the introduction of *Arabic*, as the language of religion and learning, after the conversion of several of these tribes to the *Mahummedan* faith.

The vernacular *Indo-Chinese* languages on the continent, seem all to be, in their original structure, either purely monosyllabic, like the spoken languages of *China*, or they incline so much to this class, that it may be strongly suspected, that the few original polysyllables which they contain, have either been immediately derived from the *Pali*, or formed of coalescing monosyllables. These languages are all prodigiously varied by accentuation, like the spoken languages of *China;* and every foreign modification which they have received seems to have been immediately derived from the *Pali*.

In the paucity of existing monuments, relative to the *Indo-Chinese* nations, no better method presented itself, either for classing their tribes, or laying a foundation for historical researches, than by examining the mutual relation of the several languages which are current among them. This method, when applied on an extensive scale, is always the surest clue for developing the origin of a nation, and indicating the revolutions to which it may have been subjected, either by foreign conquest or colonization. After the relations of the language itself, the ancient monuments and compositions, preserved in it, claim our regard; and I have therefore noted, under their respective heads, such as have come to my knowledge; premising that my opportunities of procuring this species of information have been very unfavourable, and of examining them, very limited.

The *Indo-Chinese* languages may be considered in the following order.

Polysyllabic languages.	*Monosyllabic languages.*
1 Malàyu,	7 Rukhéng,
2 Jáwa,	8 Bárma,
3 Búgìs,	9 Môn,
4 Bima,	10 T'hay,
5 Batta,	11 Khôhmén,
6 Gála, or Tăgáia.	12 Lâw,
	13 Anám

The learned language.

14 Pali.

I. MALAYU.—The *Malayu* language, so pronounced in the *Malaya* peninsula, but by *Europeans* generally denominated *Malay*, is used by the numerous and enterprising nation of that name, who are termed *Khék* by the *Siamese*, and *Masú* by the *Barmas*. This language, which from its sweetness, has been termed the *Italian*, and from its widely extended use, the *Hindostani* of the East, though it coincides with the monosyllabic languages in its general construction and analogies, is properly polysyllabic in its form. Having spread itself over a great extent of country, not only in the *Malaya* peninsula, but far among the eastern isles; and having been propagated by a race more skilled in arms than in letters, it has branched out into almost as many dialects as states, by mixing in different proportions with the native languages of the aboriginal races. This is the circumstance which renders the investigation of the origin and relations of the *Malayu* language a matter of difficulty, as it becomes necessary to examine the history of the nation, as well as the structure and composition of the language itself. Though used by a nation of comparatively late origin, at least with

respect to the principal features which it at present presents, the history of this nation is still very obscure, rather, it may be presumed, from the want of investigation, than from the want of materials for its illustration. The history of the origin and progress of the *Malayu* tongue, of course partakes of this obscurity; but notwithstanding the great diversity which occurs in the spoken dialects, in the bazar jargon, or as the *Malays* term it, the *Basa Dagang*, of the several *Malay* states, the *Basa Jawi* or written language of composition, is nearly the same in all; and the popular, or vernacular languages, are reckoned pure, in proportion as they approximate to the written language.

Assuming therefore the *Basa Jawi* as the standard of comparison, the *Malayu* language, in its present state, consists of three principal component parts. The first of these, which is rather the most copious and current in the language of conversation, may, perhaps, in the present state of our knowledge, be regarded as original, though it is not only connected with the insular languages, but with some of the monosyllabic, as *Bárma* and *T'hay*. The second, which is obviously derived from the *Sanscrit*, is rather inferior in the number of vocables to the first, though as far as regards general use, greatly superior to the third part, which is derived from the *Arabic*. As a spoken language, the *Malayu* exists in the greatest purity in the tin countries, or the peninsula of *Malaya*, which is obviously the *Temala* of PTOLEMY. *Temala* is a regular derivative from the *Malay* vocable *tema*, which signifies *tin*, and from this, among other circumstances, we may be permitted to infer the high antiquity of the basis of the *Malay* language, from its giving name to the *Cassiterides* of the east. The

Malayu language is spoken in its greatest purity in the states of *Kiddeh* or *Tanna Say*, *Pera'k*, *Salangór*, *Killung*, *Johór*, *Tringgano*, *Pahang*, and as far as *Patani*, where it meets the *Siamese*. Among the western *Malays* in general, it is spoken with more purity than among the more easterly isles, but on the coast of *Sumatra*, or *Pulów Purichu*, it is intermixed with the *Batta* and other original languages. The *Menangkábow* race, who seem at an early period to have ruled the whole island of *Sumatra*, whose chief assumes the name of MAHA' RA'JA' of RA'JA'S, and derives his origin from *Lánkápura*, speak a dialect of *Malayu*, which differs considerably from that of the peninsula; but which seems, as far as I can judge, to coincide in many respects with the *Jawa* or *Javanese* language. The race have probably derived their origin from *Lankápúra* in *Java*. The *Malayu* dialects of *Riyów* and *Linga* seem to be mixed with *Javanese*, as are those of the *Malay* states on the island of *Java*. The dialect of *Pùntiana* and *Sambas*, is purer than that of *Borneo* or of *Banjar*; but that of *Passír*, on the east coast of *Borneo*, is greatly mixed with the original language of *Celebes*, or the *Búgís*. The *Malays* of *Celebes* speak a dialect greatly mixed with *Búgís*, while those of the *Moluccas* and the more eastern isles have adopted such a multitude of foreign words, that their dialect sometimes seems to be quite a different language. The simplicity of structure which the *Malayu* language possesses, in common with those of the monosyllabic class, greatly facilitates this adoption of foreign terms; and the practice is so prevalent in the more easterly isles, that the term *Basa Timor*, or the eastern language, is currently applied to every kind of jargon.

As the *Malayu* language, from its wide extent and the adventurous spirit of the nation, seems to have exerted, in the eastern isles, a modifying influence, similar to that of the *Sanscrit* in *Hindostan* and *Dekhin*, and of the *Pali* among the *Indo-Chinese* nations; it becomes necessary to examine it somewhat more particularly; especially as some of the opinions I have been led to adopt concerning it, are somewhat different from those which have been entertained by names of great authority.

The *Malay* language, according to MARSDEN whose opinion has been rather admitted than confirmed by Sir W. JONES, is "a branch or dialect of the widely extended language, prevailing throughout the islands of the *Archipelago*, to which it gives name, (which may be understood to comprehend the *Sunda*, *Philippine*, and *Molucca* islands) and those of the *South Sea;* comprehending, between *Madagascar* on the one hand, and *Easter Island* on the other both inclusive, the space of full 200 degrees of longitude. This consideration alone," adds that able author, "is sufficient to give it claim to the highest degree of antiquity, and to originality, as far as that term can be applied. The various dialects of this speech, though they have a wonderful accordance in many essential properties, have experienced those changes which separation, time, and accident produce; and, in respect to the purposes of intercourse, may be classed into several languages, differing considerably from each other*." In another paper published in the Archæologia, vol. VI. this able author has successfully exhibited a variety of instances of coincidence, both in sound and signifi-

* Asiat. Research. Vol. IV.

cation, between the *Malay* and several of the eastern dialects. By attempting to prove too much, however, I apprehend, that he has failed essentially. He has pointed out a few coincidences, but has left the mass of the language totally unaccounted for; and as the few coinciding words may all have been derived from a common source, it is perhaps a more natural inference to conclude that they have all been modified by some general language, than with Sir W. JONES, to determine that the parent of them all has been the *Sanscrit*. The same author, in his history of *Sumatra*, seems inclined to think that the *Malay* language was indigenous in the *Malay* peninsula, from which it extended itself among the eastern isles, till it became the *lingua franca* of that part of the globe. The author of the description of *Siam*, in the modern part of the Universal History, not only assigns a very different origin to the language, but accounts in a very different manner for its uncommon extent. Describing *Malacca*, he observes, "The *Malayan* tongue is formed out of the languages of the different nations which resort hither, by selecting the choicest words in each. Hence it is reckoned the most agreeable and elegant in all the *Indies*, which quality, joined to its use in trade, causes it to be learned by the remotest eastern people." A language, formed according to this ingenious idea of selection, might probably be remarkably agreeable and elegant, but it would be still more remarkable, as a new phænomenon in the history of nations. It would certainly be a very uncommon occurence in the history of mankind, to discover a nation so choice in matters of abstract sound, and so refined in their organs of hearing, as to take the trouble to learn a copious and unknown language, for the mere abstract pleasure of gratifying this delicate sense or appetite

for sweet vocalic sounds. Nevertheless, though the author is a little unfortunate in his doctrine of causes, the fact to which he alludes is worthy of attention; for it is not necessary to possess a very minute knowledge of the *Malayu* language, to be able to call its originality in question. It may be safely affirmed, that neither the *Malay lingua franca* of commerce, nor any of the maritime dialects of *Malayu* existed previous to the era of MAHUMMED, in a state similar to that in which they appear at present; and these dialects seem to comprehend all that are usually included under the denomination of the *Malayu* language.

The *Malayu* language, in this limited sense, is obviously indebted to two foreign sources, for the majority of the vocables which compose it, and these are the *Sanscrit* and the *Arabic*.

The connection between the *Sanscrit* and *Malayu* was first remarked by Sir W. JONES, and Mr. MARSDEN has confirmed the fact, by about fifteen examples, selected, as he says, with little pains, from a *Malay* dictionary, which had he been acquainted with the *Sanscrit* language, he might with very little labour, have extended to fifteen hundred, or perhaps five thousand. Many of the *Sanscrit* words in the *Malayu*, as he observes, are such as the progress of civilization must soon have rendered necessary, being frequently expressive of mental feelings, or such modes of thinking as naturally result from the social habits of mankind, or from the evils which tend to interrupt them. Many of the names of the common objects of sensation are also of *Sanscrit* origin; nevertheless, the simplest part of the *Malayu* language, and that which is most indispensable to its existence

as a distinct tongue, is certainly not derived from the *Sanscrit*.

With respect to the connection between *Arabic* and *Malayu*, MARSDEN observes, that the latter language abounds with *Arabic* words, which writers affect to introduce, because this display of literary skill is, at the same time, a proof of their religious knowledge. He adds, that these words are generally legal or metaphysical terms, borrowed from the Koran or its commentaries, that they are never expressive of simple ideas, are rarely used in conversation, and, with few exceptions, seem never to have been thoroughly incorporated into the language. This account of the introduction of *Arabic* into *Malayu* is unexceptionably just, excepting with respect to the use of *Arabic* terms in conversation, which is affected by all *Malays* who have any pretensions to literature. The number of *Arabic* vocables too, that have been introduced into *Malay* compositions, though certainly inferior to those of *Sanscrit* origin, are considerably more numerous than might be supposed from this statement; or rather, as in *Persic* and *Turki*, it is difficult to assign any bounds to their introduction, but the pleasure of the writer. It may also be observed here, that in the *Malayu* language, *Arabic* plurals are very commonly used as singulars, as often happens in *Turki*, and other dialects which admit of a mixture of *Arabic*. MARSDEN has mentioned another peculiarity, in which *Arabic* vocables, adopted by the *Malayu*, differ from adopted *Sanscrit* terms. While the *Arabic* words retain their peculiar and harsh pronunciation, those of *Sanscrit* origin are softened down, and assimilated with the rest of the language. This observation must likewise be taken with many limitations; for numerous words, of *Ara-*

bic origin, are so completely assimilated to the *Malayu* pronunciation, that they are no longer capable of being recognized, even by a native *Arab*, unless by attention to their radicals; the *ain* and *ghain*, in particular, excepting in religious terms, are very generally converted into *Alif* and *Gaf*, both in writing and pronunciation. It is certain, however, that *Arabic* words are naturally untractable, and are apt to have a foreign appearance when assumed into any other language, in spite of all modifications. The *Arabic* is a language so complete in itself, and so peculiar in its structure, that it is as little capable of coalescing neatly with any other language, as a curved line with a straight one.

MARSDEN has likewise hazarded an opinion, that the polish, which the *Malayu* has derived from *Sanscrit* or *Hinduvi*, has been obtained immediately from the natives of *Guzerat*, previous to the debasement of the genuine *Hinduví* of the northern provinces, by the mixture of *Arabic* nouns, and the abuse of verbal auxiliaries. The resort of the people of *Guzerat* to *Malacca*, he adds, "is particularly noticed by DE BARROS and other authentic writers; and it is well known that the *Hindu* language has been preserved with more purity in that, than in any other maritime province of *India*." To this, it is sufficient to answer, that the *Sanscrit* vocables, adopted in *Malayu* and *Guzeráti*, are generally preserved purer in the former than in the latter; that the *Guzeráti* has no pretensions to be considered as a pure dialect of *Hinduví*, but on the contrary, is one of the very first that was corrupted by a mixture of *Arabic*, and that long prior to the period mentioned by DE BARROS. The *Bengáli* language itself, corrupted in pronunciation, as it certainly is, might have

been more safely adopted, as the medium for the introduction of *Sanscrit* vocables into *Malayu*. Many *Sanscrit* words that are in current use in *Bengáli*, likewise occur in *Malayu*, with almost the very same pronunciation. Of this it is easy to produce a multitude of instances. The following are such as present themselves spontaneously:

Beng.	*Malay.*	
Tot'hapi	Tatapi	but, however.
Punah	Pún	farther, again.
Tutkalé	Tutkala	then.
Bongsh	Bangsu	a race or family.
Kichhu or Kichhi	Kichi	a little.
Inggit, a signal	Ingat	notice, memory.
Barung, a gift, a thing, a quality.	Barang-barang,	any thing.

But it is needless to adduce further instances; as the *Malay* history and the language itself, exhibit traces sufficiently clear, to direct us to the region, with which the *Malays* had the most frequent intercourse, at an early period, and from which their language seems to have received the most considerable modifications, and that is the ancient kingdom of *Kalinga*. Here I am again under the necessity of dissenting from MARSDEN's opinion. He says, "It is evident, that from the *Telinga*, or the *Tamool*, the *Malayan* has not received any portion of its improvement." I apprehend that the express reverse of this opinion is evident; for the *Malays*, at this very period, know the *Coromandel* coast by no other name than *Tanna Keling*, the land of *Keling* or *Kalinga*: a multitude of compositions, current among them, profess to be translations from the *Basa-Keling*, or *Kalinga* language; and the *Malayu* language contains a great number of words that are *Tamul*, *Malayálam*, and *Telinga*; though neither *Sanscrit*, *Hinduví*, nor *Guzeráti*; and a variety that are only to be found in *Telinga*, the vernacular language of the *Kalinga Desa*.

For the same reasons that I infer an ancient intercourse to have subsisted between the *Malays* and *Kalingas*, I am induced to think that a very intimate connection subsisted, at a very early period, between the *Malays* and *Javanese*. Not only the proximity of the island of *Java*, and the constant intercourse between the *Malays* and *Javanese*, point to this connection, but the whole of *Malay* literature, the state of the language, and the whole series of *Malay* history, confirm it. It is from the *Javanese* that the *Malays* profess to have received all their earlier mythological fables; and a great variety of their books profess to be translations from that language: even in compositions professedly translated from the *Keling* language, the *Javanese* name of the story is often mentioned: and almost every *Sanscrit* term, that occurs in *Malaya*, is likewise to be found in the *Basa Dalam Jawa*, the high language of *Java*, or rather the language of the interior; though a multitude of *Sanscrit* words, current in the *Javanese* language, are not to be found in the *Malayu*. Besides many of the *Malay* states, and those of the greatest antiquity, are known to have been founded by *Javanese* adventurers, anterior to the arrival of the *Arabs:* and if the historical traditions of the *Malays* were better known, there are many reasons for supposing, that more of them would be found to claim the same origin.

The greater part of the words of *Sanscrit* origin, found in *Malayu*, do not appear to have been introduced through the medium of the *Bali*. In many instances, the *Malayu* form approaches nearer the pure *Sanscrit* than even the *Bali* itself; and many mythological stories exist in *Malayu*, and mythological characters are introduced in them, that as far as I have been able to learn, do not occur in *Bali*

compositions at all, nor in any of the *Indo-Chinese* languages of the continent.

But after assigning the *Arabic* and *Sanscrit* vocables to their proper sources, a large proportion of words in the language will still remain unaccounted for; and these words too, expressive of the most simple class of our ideas, and the most remarkable objects in nature. This part of the language, which in comparison of the rest, may be termed native or original, MARSDEN attributes to what he reckons the original insular language of the *South Seas;* and this original language, again Sir W. JONES pronounces a derivative from the *Sanscrit.* That it is not *Sanscrit,* a very slender knowledge of the two languages is sufficient to evince; and if this original part should itself turn out to be derived, as I apprehend, from different sources, the idea of an original insular language will fall to the ground. Now there are a variety of reasons for supposing that this part of the *Malayu* language, which might be imagined the most simple and original, is in reality, more corrupted and mixed, than those parts which are confessedly derived from a foreign source. Several of the *Malayu* terms, which express the most simple and remarkable objects in nature, appear to be only gross auricular corruptions of true regular terms in the more ancient eastern languages, as *Jawa, Bágís, T'hay,* and *Barma;* and many of the simplest objects are not distinguished in *Malayu* by simple words, but by compound metaphorical and significant terms. The omission of the first syllable, in words derived from a foreign language, whether ancient or modern, is a frequent practice in the *Malayu* language: thus the *Sanscrit Avatara* becomes *Bitara,* and thus *rumbúlum,* the moon, in *Javanese,* becomes *Búlun* in *Malayu*—and *Móputi,* which signifies *white,* in *Búgís,* becomes *puti*

in *Malayu*. Again the metaphorical term *mata-hari*, which literally signifies the eye of day, is the only native term for the sun; though *Chinkerwala*, a corruption of the *Bali* term *Chakrawala*, has been adopted in the higher dialect, or poetical style, termed the *Basa Dalam*. The *Malay* term *tuhin* which signifies *the aged*, is used as synonymous with *Allaht'aala*, which they have adopted from the *Arabic*. A number of *T'hay* vocables occur in *Malayu;* but, for the most part, they are neither expressive of our simplest ideas, nor of the most remarkable objects in nature, excepting perhaps *ku*, the contracted term of *Aku*, I, in *Malayu*, which is the same in *T'hay* or *Siamese*. A variety, however, of important words seem to have been adopted from the *Barma* language, especially in the verbal auxiliaries; and in most of these instances, it may be observed, that the *Malayu* pronounciation coincides better with that of *Tavay*, or *Tinnau*, than with that of the *Barmas* proper. Thus the substantive verbal auxiliary of the present, *adda*, seems to be only a modification of the more simple *da* or *dé* of the *Barma* language. The past *suda* of the *Barma syi dé*, the auxiliary of the future *jadi* of the *Barma rade*, pronounced *ya-dé* or *ja-dé*, *mâw*, will or may, is a modification of the *Barma Mi*, or *minh'*, and the permissive auxiliary *léh* of the *Barma lé*. Of the connection of the *Malayu* with any of the spoken dialects of *China*, it is more difficult to speak with accuracy, in the present state of our knowledge. BARROW, and some other authors of reputation, are inclined to attribute the origin of the *Malay* tribes to the nations of *China*; and that author observes, that many words, in the languages of *Sumatra*, are similar in sound to *Chinese* vocables; and that the corresponding words generally express the same idea in both languages. Of the value of this opinion it is not easy to speak in correct terms, for the proper *Chinese* languages, are

at least ten in number, and the dialects of *Sumatra*, vary almost as much, on a small scale, as the dialects of the *Chinese*; and to jumble together a number of corresponding words in all those dialects, may therefore be no very difficult task. Some coincidences there certainly are, between the *Malayu* and the *Chinese-Mandarin* language; thus in the first personal pronoun, *saya* and *gua*, which both signify *I* in *Malayu*, very nearly coincide with the *Chinese seaó* and *ngo*, which have the same signification; but, on the whole, these coincidences seem neither very numerous nor important.

The *Malayu* language is extremely well fitted for being a *Lingua Franca*, or general medium of communication among the eastern isles, by the smoothness and sweetness of its tone, and the simplicity of its structure and construction. Its simple pronouns indicate rank and situation, and are almost as numerous as in *Chinese*; but the different dialects of the *Malayu* vary considerably, both in the use of the pronouns and of the verbal auxiliaries. It may also be observed, that the more mixed and impure any dialect of *Malayu* is, it is more verbose, more indefinite in its expressions, and more loaded with useless auxiliaries and epithets, which encumber the language, without adding either elegance, force, or dignity. The beauty and elegance of the *Malayu* is its simplicity; and the purity of its minor dialects may often be ascertained by this criterion alone.

The literature of the *Malays*, though the language is well adapted for poetry, is not distinguished by many features of originality. A degree of monotony and repetition occurs in all the compositions of the monosyllabic languages, which has a great tendency

to damp the ardour of composition, and extinguish poetical fire. The construction of the *Malay* is analogous to that of the monosyllabic languages, and there is also considerable similarity in the character of its compositions. The most favourite species of composition among the *Malays*, is the *Pantún*, a word which is generally translated *song*, but which perhaps might with more propriety be rendered *simile* or *proverb*, as it consists of a simile, proverb, or apophthegm versified, and its application. A *Pantún* is a rhyming quatrain, and is always restricted to four lines; hence it affects a kind of oracular brevity, which is very difficult to be comprehended by *Europeans*, who can seldom perceive any connection between the similitude and the application. The *Malays* allege, that the application of the image, maxim, or similitude, is always accurate; but it may be suspected that if one half of the verse be for the sense, it often happens that the other is only for the rhyme, as in the ancient *Welsh* triads or triplets, in which there is professedly no connection between the natural image and the moral maxim. These *Pantúns* the *Malays* often recite, in alternate contest, for several hours; the preceding *Pantún* always furnishing the catch-word to that which follows, until one of the parties be silenced or vanquished, or as the *Malays* express it, *be dead, suda mati.* Many of these *Pantúns* bear no inconsiderable resemblances to the *Dohras* and *Kubitás* in the ancient *Hinduvi* and *Vruja* dialects of *Hindostan.*

The *Sáyer* is another species of composition, which is analogous to the *Persic Musnevi.* Moral poems, resembling the *Pundnaméhs* of the *Persians*, didactic works, or descriptive compositions and legendary or heroic narratives, are composed in this measure. The

Cheritra or *Hikaiat*, also denominated *Chitra* and *Kuggawin*, from the *Javanese*, is more generally written in prose, but frequently intermixed with verse, both in the measures of the *Sáyer* and *Pantún*. These *Cheritras* contain the mythological stories current among the *Malay* tribes, and also fragments of their history, embellished in a poetical manner. The three great sources of all the *Malay* legends are the *Javanese*, *Keling* and *Arabic* languages; but in the compositions of latter date, the characters and incidents are so mixed, that it is not always easy to determine to which of these sources they ought to be referred. There is also one class of stories which the learned *Malays* term *Susupún*, I imagine from an ancient dynasty of *Javanese* princes to whom they relate. Some of these legends also coincide in the general story with those of the *Siamese*, as the *Malay Selimbari* with the *Siamese Khúnp'hen*; and the *Hikaiat Shah Murdan* with the *Siamese Lín-tóng*. When characters familiar in *Sanscrit* mythology are introduced into the *Malay* legends, their adventures are generally transferred by the *Malays* to the interior of *Java*; and even *Arabian* characters are often represented as performing their adventures in the *Malay* countries.—Many of these narratives exist both in prose and verse, and of several there seem to be two editions; one derived immediately from the *Javanese* language, and which commonly contains a considerable number of *Javanese* vocables; the other from the *Keling*, which often contains a certain proportion of words more immediately derived from the *Sanscrit* and *Telinga*.

Of this latter class are probably the narratives termed *Hikaiat Pindawa*, or *Pandu* stories, which

seem popular versions, or rather abridgements, of the different parts of the *Mahabh'árata;* some of which, in reality, give the outline of the story, as faithfully as the popular abridgements of it, which I have perused in *Mahráta, Tamul* or *Telinga.* I am only acquainted with the following *Malay Hikaiats* of this class: *Pindawa Lima,* the story of the five *Pandús; Pindawa Jaya,* the victory of the *Pandús; Pindawa Berjuddi,* the gaming of the *Pandús; Pindawa Pinjam bali,* the *Pandús* borrowing a *Palace; Pindawa berjewal kapur,* the *Pandús* selling lime. The *Hikaiat Maha Raja Buma* of *Purichu Nikassan,* or account of the contest between BRAHMA and VISHNU, professes to be translated from the *Keling* of the dramatist MUNGAKARTA NIGA'RA. The *Sah-Sipundia,* or history of a *Keling* RAJAH, is probably derived from the same source. The *Hikaiat Sri Rama* is reckoned a *Susupun* story, as are the *Kusoma Indra* or history of INDRA, the *Balinta Sena,* the *Sah Kóbut,* or history of the war with the Apes, the *Rajah úlar Ninggawong,* the *Hikaiat Bida Sari,* the *Hikaiat Raja Pikermadi* or VICRAMADITYA CHERITRA, the *Hikaiat Derma* RAJAH, and the *Hikaiat Kalil o Damna* or *Malay* version of the *Kalil o Dumna.*

The following are *Javanese* relations, the *Hikaiat Chikkil Wunnungputti* RAJAH of *Kirripún,* in the interior of *Java,* the *Hikaiat Jarana Tamasa,* or the love of adventures of a chieftain of *Minjapahit,* in *Java,* composed by ANDIKA, the *Kilána Perbujaya Cheritra,* or story of a prince of *Kirripún,* the *Misa Perbujaya Cheritra,* the *Misa Kiamong Cheritra,* or history of a Princess of *Daha,* in *Java,* carried off by TIMU'NGU'NG BAPANG CHAKAR BIMA, and rescued by

BITARA KALA; the *Jaran Kilinang Cheritra*; the *Ratu Bader Kisna Cheritra;* the *Panga Witin*, or history of INU KURTAPUTTI; the *Gambar Wira-Putra;* the *Gambar Sri Ratu Anúm-Aní Malayu*, or history of GAMBAR SRI, Princess of *Daha* and RAJA ANU'M of *Malaya;* the *Naga Bisaru*, or history of a Princess of *Daha*, who was transformed into a snake, and confined in a lake, the *Putti Kola Bisnu* or history of VISHNU, the *Kinta-Buhin*, or history of a chief of *Banjarkulin* in *Java*, the *Kilana Jayang Sittru*, or history of RADIN JARAN TINANGLU, the *Angling Dermavi Raja-Cheritra*, and the *Hikaiat Parang Púting*, or history of the hatchet without the handle. To the same source are probably to be referred the following, if they are not purely of *Malay* composition; the *Hikaiat Pelandúk Jinaka*, or history of the sagacious hogdeer. The *Hikaiat Búrúng Pinggey*, or history of a wonderful bird.—The *Deva Mandú Cheritra*, the *Sayer Srí Batin*, the *Hikaiat Bian* and the *Hikaiat Rajah Boodá'k*.

The following are modifications of *Arabic* narratives, accommodated, however, to the peculiarities of the *Malayu* manners and customs. The *Hikaiat Amir Humda*. The *Hikaiat Rajah Kheiber*, the chief of the *Jewish* tribe of *Kheiber* in *Arabia*. The *Hikaiat Rajah Hinduk*, the *Hikaiat Mahummed Hanifah*, the *Hikaiat Khajeh Maimún*, the *Hikait Eblis*, the *Hikaiat Rajah Shah Murdan*, the *Hikaiat Sultan Ibrahim-ibn-Adhem*, the *Hikaiat Sekunder Dulkharneini*. The Koran is also translated into *Malayu* in the same paraphrastic manner as into *Persic*.

There are many *Malayu* compositions of a historical nature, though they are not so common as the

classes that have been enumerated: such as the *Hikaiat Rajah-bangsu*, which I have not seen, but which has been described to me as a genealogical history of the *Malay* RAJAHS. The *Hikaiat Malaka*, which relates the founding of that city by a *Javanese* adventurer, the arrival of the *Portuguese* and the combats of the *Malays*, with ALBUQUERQUE and the other *Portuguese* commanders. The *Hikaiat Pitra-jaya-Putti*, or history of an ancient Rajah of *Malacca*, the *Hikaiat Achí*, or history of *Achí* or *Achin* in *Sumatra* and the *Hikaiat Hang-Tuha*, or the adventures of a *Malay* chief during the reign of the last Rajah of *Malacca*, and the account of a *Malay* embassy sent to *Mekka* and *Constantinople*, to request assistance against the *Portuguese*. Such historical narratives are extremely numerous; indeed there is reason to believe that there is one of every state or tribe; and though occasionally embellished by fiction, it is only from them that we can obtain any outline of the *Malay* history, and of the progress of the nation. The juridical customs or traditions of the *Malays* have likewise been collected into codes of different antiquity and authority. Among those of the greatest authority are the *Undang Undang*, and the *Addat Malayu*. The most ancient of these regulations, however, appear to have been adopted from the *Javanese* and *Bugis*. Particular states have at different periods composed peculiar regulations; as the *Addât Kiddeh*, which were compiled by Rajah SHAH ALUM, in An. Heg. 1151.

No dramatic compositions, in the *Malayu* language, have fallen, as yet, into my hands, though many of them are said to exist. Scenic exhibitions termed "*Wayang-wayang*, were till lately, very com-

mon in the peninsula of *Malayu*, but are now represented as less frequently exhibited. The subjects of the *Malayu* dramas are the same as those of their histories and romances, from which, like the dramatic compositions of the *Siamese* and *Chinese*, they only differ in assuming the form of dialogue and soliloquy, the progress of the incidents being generally the same.

The following specimens of the *Malayu Pantún* and *Sayer* will exhibit the measure of the verse and the style of the composition. The first *Pantún* is a challenge to engage in a poetical contest. The rest exhibit the peculiar images introduced, and the manner of presenting them in the *Pantún*.

Tuan bulu, saya tumiang
Marileh kita berkiler taji
Tuan sapulu, saya súmbilan
Marileh kita bersindír nyani.

You are a bamboo and I am but a slender twig;
Yet come on, let us sharpen our weapons:
You are as ten, and I am only as nine;
Yet come, let us contend in ironical verse.

Boah dilama ber pangsu pangsu
Samajuga bijinya merah
Jangan tuan berpilis bangsu
Samajuga daranya merah.

The pomegranate has many partitions,
But the seed is equally red in them all:
Do not give an undue preference to a race of men,
For the blood is equally red in them all.

Boah mamplum deri *Patani*
Masa sabiji de kulum rúsa

Tuan Islam saya Nasrani
Sama sama manangung dúsa.

Of all the Mangoes of *Patani*
A ripe one is but a mouthful to a stag;
You are a Moslem and I am a Christian,
But we must equally bear our own faults.

Batang padi jangan de rúrút
Kalu de rúrút rúsa batangny
Hati muda jangan de túrút
Kalu de túrút rúsa badinya.

Shake not the rice stalk,
If you shake it the stalk is ruined:
Do not yield to youthful inclination,
If you yield your person is ruined.

Siri kúning deri *Patani*
Pinang muda deri *Maláka*
Puti kúning ana'k Nasrani
Itu membawa badin chilaka.

The yellow betel leaf of *Patani*,
The fresh betel-nut of *Malacca*,
A white yellow christian damsel,
Bring a person to total ruin.

The following passage of the *Sélimbari* is given as a specimen of the *Sayer* verse, in which the *Malay* romances and moral poems are generally composed. In both measure and style they exhibit considerable resemblance to the ancient *English* and *French* romances; there is little variety of pause or accent, and the line consists indifferently of eight or nine syllables, one long syllable being reckoned equivalent to two short.

Tutkala tuan lunkah de natang
Mata mamandang sepúrti bintang
Chahianya limpah gilang gumilang
Teadaléh abang dapat mamandang
Pipinya bagei paü de lalang
Bersambút dangan lehernya jinjang
Paras sepúrti gumbar dan wayang
Barang de makan berbayang bayang
Dahinya bagei sahari búlun
Kinningnya bintúh bagei detillang
Lalu de ambil jadikan túlun
Mamàki chinchin permata *Sélun*
Changgeynya panjang ber kílat kílat
Sepùrti mutiara suda tericat
Pingganguya ramping terlalu chantík
Leher laksana gumbar delarík
Mungluarkan kata yang patáh chirdík
Bibirnya bagei patey chicharík
Teada mamáki laku ber saja
Giginya itam bukkus ber baja
Chartik moïlik gilang de Raja
Bersúnting kútum búnga Seraja,
Parasnya elók búkun kapalang
Intahkan jiwa garangan hilang
Kapada mata suda terpandang
Teadaléh dapat kumbali pulang.

When my mistress looks forth from her window,
Her eye sparkling like a star,
Its brilliant rays glancing and glittering
Her elder brother cannot support its lustre;
Like the red mangoe is the hue of her cheek,
Becoming her tapering neck,
Traversed with shadows whenever she swallows:
Her features like those of a statue or scenic figure,
Her forehead like the new moon in its first day,

Her eye-brows curved, so fair I could devour her,
Long has she been chosen to be my mistress
Wearing a ring set with gems of *Ceylon*,
Her long nails shining like lightning,
Transparent as a string of pearls,
Her waist slender and extremely elegant,
Her neck turned like a polished statue,
Eloquent in the enunciation of her words,
Her parting lips like the crimson red wood
Not by dress, but by herself adorned;
Black are her teeth stained with *baja* powder,
Graceful, slender, appearing like a queen,
Her locks adorned with the *Seraja* flowers,
Her features beautiful with no defect of symmetry,
My soul is often fluttering ready to depart,
Glancing eagerly forth from my eyes,
And quite unable to return to its station.

The character generally used by the *Malays*, is a modification of the *Arabic*; and, in addition to the proper *Arabic* alphabet, the *Malayu* uses six letters, of which one is the *Persic ché*, a second the slurred *dal*, of the *Hindostani*, two more correspond in power to the *Persic* and *Hindostani pa* and *ga*, but are written of a different form, and the remaining two, *nga* and *nya*, are peculiar in form, but correspond to the nasals of the first and second series of the *Deva-Nagari* alphabet. The *Malays* of *Java*, however, often use the *Javanese* character, to express their own language, as those of *Celebes* do the *Búgis*. In the *Moluccas*, the *Latin* character has obtained some degree of currency, even among the *Malays*, and is sometimes used by them to express the *Malayu* language.

The *Malayu* language was one of the first cultivated in the east by *Europeans*. The first attempt to form a grammar or dictionary of it, as far as I know, was

made by DAVID HAEX, who published in *Malayu* and *Dutch*, a vocabulary with some grammatical observations: At the request of Cardinal BARBERINI, the *Dutch* was rendered into *Latin*, and published with the *Propaganda* types at *Rome*, 1631, under the title of "*Dictionarium Malaico-Latinum et Latino-Malaicum, operâ et studio* DAVIDIS HAEX." This is a work of some merit, but seems to have been composed in the *Moluccas*, and inclines to the *Basa Timor*, or eastern dialect of the *Malayu*. The author has given a short list of *Tarnata* and *Portuguese* words, that have been adopted into *Malayu*, and some useful observations on the phraseology. Professor THUNBERG, probably by mistake, mentions this work as published in 1707. It seems to have served among the *Dutch*, as a basis for similar compilations. The "*Malaica Collectanea Vocabularia*," or collection of vocabularies, was printed at *Batavia* in 1707-8, in 2 vols. 4to. and the "*Dictionarium of te Woord ende Spraak boek in de Dutsche en de Maleysche Tale*," at the same place in 1708, in 4to. A "*Maleische Spraak-kunst*" or *Malay* Grammar, was published by GEORGE HENDRIC WERNDLY, at *Amsterdam*, in 1726, 8vo. A "*Nieuwe Woordenschaft in Neder-Duitsch, Maleisch en Portugeesch*, was also published at *Batavia* in 8vo. 1780. The *English* have also contributed their share to the cultivation of this language. BOWREY's Grammar and Dictionary of the *Malay* language were published at *London* in 1701, in 4to. after the author had passed nineteen years in trading among the eastern isles. This is a work of great merit and labour, and though the *English* character only is used, yet the pronunciation and the signification of words are generally given with great accuracy. BOWREY, however, had the assistance of the two eminent orientalists, HYDE and MARSHALL, in its composition,

both of whom were excellently skilled in the language. In 1801 was published at *London*, "A Dictionary of the *Malay* tongue, to which is prefixed, a Grammar of that language, by JAMES HOWISON, M. D." The author founds his claims on a ten years acquaintance with the *Malays*, and their language. From the scarcity of BOWREY's work, I have not been able to compare it with the publication of Dr. HOWISON, but I suspect the additions of the latter to be neither numerous nor important. One improvement he has attempted, and it is the following. "In giving the *Malay* words in the *Arabic* character," says he, "we have followed the excellent example of RICHARDSON and GILCHRIST in their *Persian* and *Hindoostanee* Dictionaries, and it is, in fact, the character used by the *Malays* themselves." But had Dr. HOWISON been acquainted with the *Malay* orthography, he would have perceived that this barbarous mode of converting the *English* character into the *Persic*, could be of no possible utility, either to an *European*, or an *Asiatic*. The *Malayu* has an established orthography, like the *Arabic*, *Persic*, and *Hindostani*; and this established orthography of *Malay MSS.* he has violated, repeatedly, in every page, not only by spelling the *Malay* words in a mode never used among the *Malays* themselves, but by omitting all their peculiar characters, and by using some *Persic* characters, as *pa* and *ga*, with which the *Malays* are unacquainted altogether. "A short Vocabulary, *English* and *Malayo*, with grammar rules for the attainment of the *Malayo* language," was published at *Calcutta* in 1798. The rules differ little from those which appear in HOWISON's Grammar, prefixed to his Dictionary, and the vocabulary generally coincides with it in the explanation of words, which are not very numerous. Besides these

works which have been printed, many Vocabularies and Dictionaries exist in MSS. in *Dutch*, *English* and *Portuguese*; and of these several are in my possession. RELAND, in his "*Dissertatio de linguis Insularum Orientalium*," mentions a large MS. Dictionary which he had consulted, composed by LEIDEKKER, a *Dutch* clergyman in *Batavia*, from which he has selected a specimen of the language. Several smaller Vocabularies of *Malayu* have been published, chiefly by voyagers and travellers, with various degrees of accuracy. Being generally constructed in a very hurried manner, by persons devoid of a radical knowledge of the language, and often, as may be presumed, under the necessity of expressing their questions by a mixture of signs, they generally abound in very ludicrous errors and risible mistakes. Of this kind, many instances might easily be selected from LABILLARDIERE'S *Malay* Vocabulary, nor is that published by Professor THUNBERG, in his travels, entirely free from them. Besides they are generally mixed with a variety of *lingua franca*, and other eastern words that are never received in correct *Malayu*.

The sacred scriptures, at an early period, began to be translated into the *Malayu* language. The gospels of MATTHEW and MARK were first published in the *Malayu* language and *Arabic* character at *Enchusa*, in 1629, in 4to. according to the version of ALB. CORN. RUYL, and accompanied with the *Dutch* version. A second edition was published at *Amsterdam* in 1638. The gospels of LUKE and JOHN were published at *Amsterdam*, in 1646, according to the version of JOHN VAN HASEL and JUST. HEURN, in 1648, published "*Psalmi quinquaginta priores, Malaicé et Belgicé.*" The four gospels were republished, more

correctly, with a version of the Acts of the Apostles, by JUST. HEURN, at *Amsterdam*, in 4to. 1651. Genesis was published in *Malay*, at *Amsterdam*, in 1662, according to the version of DAN. BROUWER, and the New Testament, by the same author, in 1668. A second edition of Genesis was published in 1687. The four Evangelists and the Acts of the Apostles were published " in the *Malayan* tongue," at *Oxford*, in 1677, in 4to. and reprinted in 1704. Both editions are in the *Roman* character, and though HEURN's version was followed, yet the first edition had the advantage of being superintended by the learned HYDE, who has prefixed to it, a dissertation on the dialects of the *Malay*, and the method to be employed in studying the language. The Psalms, or " *Psalterium lingua Malaica et Belgica*," was published by VAN HASEL and HEURN at *Amsterdam* in 1689. The " *Psalterium Malaice*" was published at *Amsterdam* in 1735, with musical notes. A complete version of the Bible was published at *Amsterdam*, in *Roman* characters, in 1733, and this version was again published in the *Arabic* character, with the addition of the *Malay* peculiar letters, at *Batavia*, in 5 vols. 8vo. 1758, under the direction of JACOB MOSSEL, Governor General of the *Dutch* possessions in the *East Indies*. The persons who superintended the edition were JOHAN. MAURITZ MOHR, and HERM. PETRUS VAN DE WERTH. A *Malay* catechism was also composed by GUSTAVUS WILLIAM BARON VAN IMHOFF, and printed at *Batavia* in 1746. This version of the Bible, is composed in the idiom of *Bataxia* and *Malacca*, and I have heard it objected, that it is not very intelligible in *Sumatra*, and other *Malay* countries; but I regard it as quite impossible to form a *Malayu* version which would be approved in point of style, in every *Malay* country at the same time,

for so great is the diversity in point of style between the *Javanese-Malayu* and the *Arabic-Malayu*, that even in the same country, those who are proficients in the one, are often scarcely able to understand the other.

II. JAWA.—The *Jawa*, or *Javanese* language, is admitted by the *Malays* to be that of a more ancient nation than themselves, and at no very distant period seems to have been current through the whole extent of *Java*. The island of *Java* was formerly subject to a single sovereign, bearing the title of RATU AGONG or SUSUHUNANG, of the *Susupún* race, who generally held his court at *Kirripún* or *Suryakarta*. The nation was brave, enterprising and populous, and before the introduction of the *Mahummedan* religion, about the year A. C. 1400, their power was supreme in the eastern seas, and they extended their conquests to *Sumatra*, *Borneo*, and even as far as the *Moluccas*. Their voyages often rivalled the celebrated Argonautic expedition in the spirit of adventure. They became known to *Europeans* only in the decline of their power; yet it was still so formidable as repeatedly to shake the authority of the *Portuguese* in *Malacca* itself; and one of the dependent princes of *Java* was able to fit out a fleet of thirty large vessels, the admiral of which was so strongly built, as to be reckoned, at that period, cannon-proof. The *Jawa* language is subdivided into a great number of dialects, all of which may be respectively classed under the heads of *Basa-dalam* and *Basa-lúar*, the interior or high language, and the exterior or vulgar language of the coasts. Both of these differ considerably from the *Malayu*, which has adopted a multitude of terms from the *Basa-lúar Jawa*, or coast language of *Jawa*, compared even with which the *Malayu* lan-

guage appears to be a corrupt derivative. The language of the interior, however, or the *Basa-dalam Jawa*, has a close and intimate connection with *Sanscrit*, and expresses the simplest objects and ideas by vocables which seem to differ no farther from the *Sanscrit* than in the correct pronunciation necessarily produced by the use of a less perfect alphabet. The only *Javanese* that I have met, who could speak the *Basa-dalam Jawa*, was not able to write the character; yet I perceived, in forming a short radical vocabulary, that he used many *Sanscrit* words for common objects, which are not in any dialect of *Malayu*.

The alphabet of *Jawa*, is peculiar, and has no resemblance in the order of position to the *Deva nagari*. The number of characters are twenty, and these are varied by four vowels, e, i, u, o, but the real number of vocalic sounds is considerably greater. The *Javanese* character is written from right to left. The alphabet has been exhibited with considerable accuracy by LE BRUN, and also by RELAND; and it appears to have attracted the attention of the learned HYDE, as an "*Alphabetum Bantamense*" was found amongst his Posthumous papers, which had been written for him by the Ambassador of the king of *Bantam*.

Various ancient inscriptions and monuments are said to exist in the interior of *Java*, one of which was seen by THUNBERG, at *Paditúlis*, near the blue mountains in the interior of the island, which consisted of eight lines and a half, engraved on a stone pillar, about two feet in breadth. The characters seemed, to him, to be written from right to left, and no person had been able to decypher them.

The dialects of *Bugélen* and *Súndo*, in *Jawa*, are said to be very distinct from the *Javanese* proper; and, from the first of them, the language of *Súlú* is supposed to be derived. This point, however, I have not been able to investigate in a satisfactory manner.

The literature of the *Javanese* is similar to that of the *Malays*, to which it seems to have given origin. Their *Kuggawins* or *Cheritras*, contain their mythology, and the adventures of their ancient heroes, and exhibit them in a style which has no inconsiderable resemblance to that of the *Hindu Puráńas*. The *Javanese* laws are arranged in codes of considerable antiquity, and celebrated among all the eastern islands.

The *Jawa* or *Javanese* language does not appear to have been regularly cultivated by *Europeans*, though some of the outlines of their mythological stories have been published in the transactions of the Asiatic Society in *Batavia*, as well as some vocabularies of the *Jawa* language. In the *Dutch* work, entitled "*Begin en voortgang du Oostind Compan.*" or the rise and progress of the *East India* company, a comparative view is exhibited of the *Javanese* and *Malayu* languages. The *Mahummedans* have translated the Koran into *Javanese*.

The *Bali* and *Madura* languages, spoken by the inhabitants of the isles of the same name, appear from the best information I could procure, to be dialects of *Javanese*. The greater part of the inhabitants profess the ancient religion of their ancestors, resemble the *Hindus* in their appearance, wear the *Hindu* marks on their forehead, and the women burn themselves with their deceased husbands, according

to the practice of the *Hindus*. Like the unconverted *Javanese*, they are peculiarly addicted to the worship of INDRA, SURYA and VISHNU; but being neither in possession of their original religious books, nor of the extracts from them which have been adduced in the Transactions of the Batavian Society, I forbear to dilate on this subject at present.

III. BU'GÍS.—The *Búgís* may be reckoned the original language of the island *Celebes*, in the same manner as the *Javanese* is that of the island of *Java*. This ancient, brave, and martial nation, also, became known to the *Europeans* only in their decline, but there are a variety of circumstances, relative to them, which incline me to regard them as probably more ancient, in the eastern seas, than even the *Javanese*. —In courage, enterprize, fidelity, and even fair dealing in commerce, they are placed at the head of all the *orang timor*, or eastern men, even by the testimony of the *Malays* and *Javanese* themselves, and to compare to them, either the *Chinese*, or the continental *Indo-Chinese* nations, were to compare an ass, caparisoned in stiff and gilded trappings, to a generous courser. The nation, to which the *Búgís* exhibit the greatest resemblance, is the *Japanese*, but I have not been able to discover that the same similarity exists between their respective languages, which appears in their natural characters.

The island of *Celebes* was formerly divided into seven principalities, which were all united under an elective and limited sovereign. In this state, the island was the centre of eastern commerce, and extended its conquests, on the one hand, as far the island of *Bali*, and on the other, beyond the *Moluccas*. The *Búgís* language was assiduously cultivated, and their ancient mythology, traditions, laws and history, preserved in

books, the greater part of which are still extant, especially in the interior, among the tribes who still adhere to their ancient religion. On the sea coast, the *Mahummedan* religion prevails, and their books resemble more the later *Cheritras* of the *Malays*. In 1603, the *Mungkásar Rajah*, with the whole *Mungkásar* nation, by one of the most singular revolutions on record, renounced their ancient religion, and not only adopted Islamism, but compelled a number of the inferior states to imitate their example.

The *Búgís* language, on the coasts, is much mixed with the eastern *Malayu*, and is found pure only in the ancient books, and in the interior of *Celebes*. It exhibits strong features of originality in its vocables, but resembles the *Malayu* and *Tăgála* in its construction. With *Malayu*, *Javanese* and *Tăgalá* it exhibits many coincidences, but it contains, in its original state, almost no words of *Sanscrit* origin. With the ancient *Tarnata*, or *Molucca* language, it also exhibits some coincidences, but as I have had no favourable opportunity of studying the *Búgís*, and none at all of examining the *Tarnata*, with any degree of accuracy, I cannot pretend to determine the nature of this connection. Compared with the *Malayu* or *Javanese*, it has certainly more the air of an original than of a derivative tongue.

The *Búgís* alphabet consists of twenty-two letters, which are varied by the six vocalic sounds a, u, i, e, o, úng. The form of the character is peculiar, though it appears to belong to the same class as the *Batta* and *Tăgalá*. The power of the characters coincides nearly with that of the *Javanese* letters, though they differ a little both in number and in the

order of arrangement. The form of the *Búgís* character seems not only to differ considerably, in differet states, but the alphabet also varies in the number and order of the letters. This proceeds from the adoption or rejection of the double consonants, which, though used in ancient and classical compositions, are seldom or never employed in letter-writing or common business; and hence, when a *Búgís* writes down his alphabet, it may vary, in the number of the characters, from seventeen to twenty-two. The only *Búgís* alphabet, printed or engraved, with which I am acquainted, is that which is given by FOREST, in a corner of one of the maps of his "*Voyage to the Mergui Archipelago.*" The letters are not formed according to the common round *Búgís* hand, but sharp angled, like the *Rajang* and *Batta* character; but in other respects it is sufficiently correct. The *Búgís* character is also employed frequently in writing *Malayu* compositions.

The language of the ancient *Búgís* compositions displays little diversity of dialect, but considerable variety exists in the language of conversation, in the different *Búgís* states. The dialect of *Mungkásar* or *Macassar*, the bravest and most renowned of the *Búgís* tribes, differs considerably from the *Búgís* proper; but the dialects of *Lúbú*, *Enrékang*, *Mandar*, and especially *Tä-Rajja*, seem almost to be different languages.

The *Búgís* language has never been regularly cultivated by *Europeans*, though the *Dutch* have formed abridgements of some of the historical relations in which it abounds. I have formed a short radical vocabulary of both the *Búgís* and *Mungkásar*, but cannot consider it as pure and unmixed, being de-

rived from inhabitants of the coast, though some of them were very intelligent, and tinctured with their peculiar learning. From the same source I obtained the following list of the most popular *Búgís* compositions:

1. Nama Sagúni,
2. Batára Guru,
3. Guru De Sillang,
4. Tojorisúmpa,
5. Lasini Léléh,
6. Batára Latoh,
7. Oputolaga,
8. Araulangi,
9. Panori Tawgéh,
10. Lajiri-hoi,
11. Jamuri China,
12. Laurupoysi,
13. Rotun Nari-Tatta, Datu Nagima,
14. Lamaputoda-Turipo,
15. Latum Mullurung,
16. Lauhdun-Reö,
17. Lapa Bichara Lari Sindénaré,
18. Gutupatalotopalaguna,
19. Lappang Ngarisang,
20. Opu-Sangmuda,
21. Opula-Maru-Datu-na-Sopéng,
22. Látu-gétána Paju Limpoy,
23. Sawira Gading,
24. Adewata,
25. Rotun Diliwung,
26. Data Pamúsu,
27. Lanaga Ladúng,
28. Rotun-risosú,
29. Laga-ligo,
30. Tobala Onji,
31. Radaöng Labeh,
32. Lamada Romang,
33. Palawago,
34. Lawaju-Langi,
35. Lamapa-puli,
36. Datu-Mowunléh,
37. Lalúmpang Méga,
38. Lasawúng-Langi,
39. Rotan di Papang,
40. Aji Lédéh,
41. Lamapang Aniro,
42. Latan-nari-jivi,
43. Bayapágúli,
44. Latupu Sallau,
45. Latúpúgulla,
46. Latan nari Pulang,
47. Satya-bonga,
48. Lasatúng-pugé,
49. Laga-lego Tokolinghéng,
50. Latan naroági,
51. Datula-Kila,
52. Lapanadora,
53. Rotan di timang toan laniú.

The greater part of the compositions here enumerated, celebrate the deeds of their national heroes. But besides these, the "*Addat*," or codes of *Búgís* law are of considerable antiquity, particularly those of *Gua*, *Waju*, *Boni* and *Mandar*; and of great repute, among the eastern tribes. Several of them are translated into *Malayu* and *Javanese*. The Koran is also translated into the *Búgís* language.

The *Búgís* songs and romances are famous among all the islands of the East; and, as far as I can judge, from a very limited knowledge of them, equally excel, in force of thought and fluency of versification. The use of rhyme is much less frequent than among the *Malays*. The melody of the verse depends on the rhythm, and the measure, in the historical poems, has often considerable similarity to some of the species of *Sanscrit* verse. The following lines are given as a specimen from the "*Wépaléteï*," the only *Búgís* story in my possession.

Narétélangi napapabajo natokúnruna *Wépaléteï*
Lalo saliwang pasisi aji rito matindro sésimpangi
Rittomapiddang sisulingi matduadua mua kakana
Wemapamaï natijinruna lalu saliwang rútúpanimpa
Lakunatillum tirrimakudda Wullirijáwa tó *Sopengi*
Jillokasawa kakapamaï lúmpuna *China* tujuna *Sabang*
Naranrukië Lajutenío sesumangutnah Passaüngé
Mabaliada wemapamaï richinaruna kuëm muă
Megama katu tudangpaliuna linna samanna tuributili
Lolangungé turipasabi ujutanai tádillerlé
Muarinili aülaün patalutuna lolangungé.

"In the morning twilight, when the day began to dawn, awaked *Wépaléteï*, and went out of the palace, stepping carefully over those who were sleeping in regular rows, and those who were reposing irregularly, where her elder brothers were sleeping two by two, and along with her went out PAMAI, her nurse and attendant. WULLIRIJAWA of *Sopéng*, went forth, and having opened the beautifully formed window, began to express her grief, "O! my elder sister PAMAI, point out to me the situation of *China* (a district in *Celebes)* and show me in what direction *Sabang* lies, where *Passaüngé* dwells, the brother of *Lajú Tenió*." PAMAI answered, "see how beautifully, the floating clouds rest on the stately trees of

China, as if they had been arranged by art. How beautiful are the lawns, which seem as if the earth had of her own accord accommodated herself to the request of man. How graceful wave the trees, with their foliage to the view, and the golden bamboos which enclose the lawns."

The *Búgís* songs are very numerous. Some of them are short proverbial maxims versified, and display considerable force of both thought and language, but I have not met with any which exhibit the peculiar character of the *Malayu Pantún*. They however exhibit many traits of the peculiar manners of the *Búgís* tribes. In the following specimens, the first alludes to a very common mode of punishing cowardice in *Celebes*, the second to the practice of poisoning weapons, and the last is a brief dialogue between a lover, going to battle, and his mistress, who presents him with her betel-box as a parting token.

Tikkungi talaséï joa maliäi
Tapasilaséï andraguru maliäi
Corripe militem segnem, castra,
Immo ducem timidum castrato.

Tillu ritumati balubalu rilléléang
Ria paserakané lanru tojirru
Túmera ritirilébu dadi aju ta *Sang*
There are three articles exposed to sale
In the clash of combat——the temper of the lance——
The form of the bullet——and the gum of the poison tree of *Sangala*.

Eja ripalínrúng ajamu marakka silla
Rikóä biritta poli riálapi sía
Raja-Túmpa ríkapéku muïnappa rínnawatíng——
——Tilla returona salina lopalopaku
Sapahna rikko otáko tíndria pauwa
Timmúnroä parúparúng tíndria kampulajangang.

Eja! object of my secret affection, be not easily moved to grieve,
Whatever news arrive from the battle, till you see
My kris *Raja Tumpa* taken from my girdle, but then grieve for the dead—
——There are three prohibitions in my betel-box, with which you must conform:
They are wrapt up in the folds of the betel leaf,—talk not in the time of action——
Loiter not idly within your tent—skulk not as you advance on the foe.

The *Mungkásar* poetry is characterized by the same features as the *Búgís*, and their national wars with the *Dutch* is said to be a favourite topic among the poets of that race. The following specimen, which is a poetical challenge, alludes to the diversion of cock-fighting, the favourite amusement of the nation.

Kérimi jangang riwaya bija jangang sundawa
Niamiunné búngasa tinumbukkéya——
Bukki tonja kontasilla púna innukké núrúntu
Tinumbukkéya bára éyapún nisillung.

Where is that courageous cock, that true game-cock, trained to combat—
For chefe is his match, full of youthful spirit, yet unconquered——
Let him then enter the lists with me, if he would be conquered;
Hitherto invincible, if I am ever conquered, it will be now——

IV. Bima.—The *Bima* language is used in the independent state of *Bima*, which includes the eastern part of *Sumbawa*, and the western part of the island *Endé*, which was childishly denominated *Flores*, by the early *Portugueze* navigators; and, after them, by succeeding voyagers and geographers. If my information is correct, the *Bima* language extends over the greater part of the island *Endé*. The *Bima* language is related in some respects to *Búgís* and *Javanese*, and on the coast is mixed with *Malayu*; but nevertheless it has strong pretensions to originality in its pronouns, verbal auxiliaries, and simple names of

objects. In those instances, in which it exhibits a relation to the *Búgís*, it seems to be more closely connected with the *Mungkásar* than the *Búgís* proper, and yet, in sentences, the difference is striking, as in the following example. "Where is the house of the Rajah?" *Bikey kuassi rumata sangngaji. (Bima) Kéré tujuna embana kérayéng. (Mungk.)* The sun, in *Bima* is termed *Mata-liro*; in *Mungkásar*, *Matulo;* in *Búgís*, *Mataso.* A man, in Malay, *orang*, is, in *Mungkásar* and *Búgís*, *taü;* and in *Bima*, *do.* The dialect of *Sumbawa*, which prevails in the districts of the island of that name, which are not subject to the Sultan of *Bima*, is of a more mixed character, and though it appears to contain many original vocables, yet the mass of the language seems derived from other sources, as *Bima*, *Javanese* and *Búgis.* Neither the *Bima* nor *Sumbawa* have any peculiar character, but use, indifferently, the *Búgís* or *Malayu.* I attempted to investigate the relations of both these languages, by forming comparative vocabularies of radical words; but not being able to procure any compositions in either of them, I do not flatter myself with having been able to obtain the purest native terms in every instance.

Specimen of the Búgís, Mungkásar, Bima and Sumbawa languages.

	Bugis.	*Mungkásar.*	*Bima.*	*Sumbawa.*
I	ië / iyo	inukké / iyo	nahu / lamada	úk, kaji / déya
we	ídi	ikaté	íta	kita
thou	mu	ikau	angomi	mu
you	iko	ikau-ngásing	gomi	kau
he	eä neä	yenjo	seä	jya
they	eämanúng	yangasing	do édé	jija taünan
this	iäé	yeïnné	aké	ta
that	yero, yetu	anjoreng	édé	to

	Bugis.	*Mungkásar.*	*Bima.*	*Sumbawa.*
who	iga, niga	inai	choété	saí
what	aga	apa	au	komépo
where	pegi	kemi	benchi	mépo
when	siana	ungapana	bunéëi	pidan
which	kéga	kerayéng	mabé	sangmépo
is	unka	nia	wara	adda
will	mélo	eroko	né	roa
can	makúléh	kúlégi	vau	bau
sun	mataso	matalo	mataliro	matahari
moon	ulúng	búlun	wúra	bùlun
star	vitóing,	bintoéng	tara	bíntang
wind	anging	angi	angi	angin
rain	bosi	bosì	ura	ûjin
day	aso	alo	liro	ano
night	wunni	bungĭ	aimangadi	anopotang
morning	élé	beribasa	aimasidi	anosiop
evening	arawéng	karvéng	aimumbiyang	anoravi
year	taúng	taung	baä	terŏ
earth	tana	bútta	dana	bumi
water	uwaï	jéné	oi	aik
sea	tási	tamparang	moti	lét
river	salók	binanga	nanga	pungbŭrang
wave	bomba	bombang	balúmba	omak
sand	kasi	kasi	sarei	garsék
mountain	búlúk	monchong	doro	olat
fire	api	pépé	afi	api
stone	batú	batú	watû	batú
gold	ulawúng	bulayeng	másanganga	bulayéng
silver	saláka	saláka	saláka	saláka
salt	păjé	chéla	síya	síra
iron	bissi	basi	besi	bosi
lead	túmera	túmbéra	tumbinga	tima
brass	túmbaga	túmbaga	romba	tomaga
white	maputi	kébok	lanta	puti

	Bugis.	*Mnngkásar.*	*Bima.*	*Sumbawa.*
black	malôtong	leling	meë	pisak
red	machillah	eja	kala	méra
yellow	maüni	kuni	moncha	kúning
green	monchombúlo	ijow	awa	ijow
blue	magaü	gau	kolúbu	kolau
fish	balé	júku	londé	ampa
fowl	manu	jangang	janga	ayam
bird	manu-manu	jangang-jangang	nasi	piyo
tiger	machang	machang	machan	machan
serpent	ula	ulara	sawa	ula
sheep	bembé	bembé	béë	badésa

This specimen of a comparative vocabulary, will convey some idea of the actual state of these languages, and of the actual variety which subsists in the language of conversation, especially on the coasts and maritime districts. Many of the words which occur in one language, are also found in others, though generally with some difference of pronunciation, and sometimes in an oblique sense. Frequently too, besides the terms which I have selected, which are only those of current use, several other words of the same signification might be found within the compass of the language. Thus, instead of *anging*, wind, in the high *Búgis*, *salarúng* occurs in this signification; and instead of *saláka*, silver, *bulémata* occurs in the high *Mungkásar* dialect. In the same manner, the personal pronouns in *Búgis* terminate their plurals in *manung*, and in *Mungkásar* in *ngasing*, both of which signify *all.* Thus, *(Bug.) idimanung, (Mung,) ikuttengásing*, we all. *(Búg.) ikomanung, (Mung.) ikaüngásing*, you all. *(Búg.) eämanung, (Mung.) yenjo yang-ngasing*, they all. It is worthy of observation, that the *Udia* language spoken in *Orissa*, forms the plural of its personal pronouns by the addition of the particle *mané*,

or *manang*, like the *Búgís*. Thus, in *Udia, umbhémane, tumbhemani, sémané* or *émané*, signify *we, ye, they*.

V. BATTA.—The *Batta* language, which I regard as the most ancient language of *Sumatra*, is used by the *Batta* tribes, who chiefly occupy the centre of that island. The singularity of their manners, and in particular the horrid custom of anthropophagy, practised by a nation in other respects more civilized than the *Malays* by whom they are surrounded, has attracted the attention of *Europeans* from the time of the earliest voyagers to our own times, but no very satisfactory account has ever been given of them, as a nation. The best description of them is certainly given by MARSDEN, in his history of *Sumatra*, but even that is very imperfect and superficial, and at variance, in some respects, with the information I received from individuals of the nation. MARSDEN confines their cannibalism to two cases; that of persons condemned for crimes, and that of prisoners of war; but they themselves declare, that they frequently eat their own relations, when aged and infirm, and that, not so much to gratify their appetite, as to perform a pious ceremony. Thus, when a man becomes infirm and weary of the world, he is said to invite his own children to eat him, in the season when salt and limes are cheapest. He then ascends a tree, round which his friends and offspring assemble, and as they shake the tree, join in a funeral dirge, the import of which is, "The season is come, the fruit is ripe, and it must descend." The victim descends, and those that are nearest and dearest to him, deprive him of life, and devour his remains in a solemn banquet. This account is certainly more likely to excite incredulity than the account of MARSDEN, but it is the account of some of the *Battas* themselves, as well as that of the *Malays* in their vicinity. This inhuman custom is not, however, without a precedent in history, for HE-

RODOTUS positively asserts, that the *Paday* or *Padaioi*, about 500 years before our æra, were not only addicted to the eating of raw flesh, but accustomed to kill and eat their relations when they grew old. Now it is curious that *Batta* or *Batay*, for the name is written both ways, seems to be the very word which, in *Greek*, is rendered *Padaioi*, the letter *p* being almost always pronounced *b* among several of the *Indo-Chinese* nations, as in the word *Pali*, which is almost always pronounced *Bali*. The following is the account which HERODOTUS gives us of the *Paday*, or *Padaioi*. "Another *Indian* nation, who dwell to the eastward of these, (the *Indian Ichthyophagi*) are of nomadic habits, and eat raw flesh. They are called *Paday*, and are said to practise such customs as the following. Whoever of the community, be it man or woman, happens to fall sick, his most familiar friends, if it is a man, kill him: saying, that by his pining in sickness, his flesh will be spoiled for them; and though he deny that he is sick, they do not attend to him, but put him to death, and feast on him. When a woman falls sick, she is treated in like manner by her most intimate female associates. They also sacrifice and feast on him who arrives at old age, and this is the reason that so few of them ever attain it, for they kill every one who falls sick, before that period."* This account of HERODOTUS certainly corresponds very minutely with the customs attributed to the *Batta* race, and renders it probable that this modern nation derive their origin from the ancient *Paday* or *Batay*. Neither is it more incredible that the *Battas* should eat human flesh as a religious ceremony, than that anthropophagy should be practised by the class of mendicants termed *Agórah Punt'h*, in

* HERODOT. Lib. III. s. 99.

Bengal, and other parts of *India*, which is a fact that cannot easily be called in question. It is surprizing that this singular custom has received so little investigation.

The names of the different *Batta* tribes, of whom I have been able to hear, are the following—

1. Batta Sebalúngú,
2. Batta Padembanin,
3. Batta Kwalu,
4. Batta Pannay,
5. Batta Toru,
6. Batta Bila,
7. Batta Kurúlang,
8. Batta Sipagabu,

In many of the *Batta* customs, considerable similarity to those of the *Nairs* of *Malabar* may be traced, as in the law of inheritance, according to which it is not the son, but the nephew, that succeeds.

The *Batta* language has considerable claims to originality, though it is not only connected with the *Malayu*, but also with the *Búgís* and *Bima* languages. In point of construction it is equally simple as the *Malayu*, but it is with the *Búgîs* that it seems to have the most intimate connection. Indeed, the manners of the aboriginal *Búgís* are supposed to have exhibited no small resemblance to the peculiar customs of the *Batta* nation; for the *Rajja* or *Tă-Rajja* tribe, in the central parts of the island *Celebes*, are said still to eat their prisoners of war. The *Batta* language is the chief source of that diversity of dialect which is discoverable in the languages of *Sumatra*. The *Răjang* or *Rejang* dialect is formed by the mixture of the *Batta* and *Malayu*; the *Lampúng*, by mixing *Melay* and *Batta* with a proportion of *Javanese*. The *Karrows*, who are subject to *Achi* or *Achin*, use only a slight variation of the *Batta* language, while the language of *Achi* proper consists of a mixture of *Malayu* and *Batta*, with all the jargons used

by the *Moslems* of the east, whether *Hindostáni*, *Arab-Tamul* or *Mápilla*. The *Achinese* resemble the *Mápillas* of *Malabar* more than any other tribe of *Malays*: they have long been connected with them as a people, and use many *Mápilla* terms currently in their language. The dialects of *Néas* and the *Poggy* islands, the inhabitants of the latter of which are termed *Mantaway*, by the *Malays*, have perhaps greater pretensions to originality than any of the dialects of *Sumatra*, but resemble the *Batta* more than any other dialect. Hence it may be suspected, that if we were acquainted with the books of the *Battas*, and knew the full extent of their language, in all its variety of expression, elliptic phrases, and obsolete words, the coincidence would be still more striking. There is probably, too, some diversity of expression in these dialects, even in their present state, for in forming a short radical vocabulary of the *Néas* language, I found it differed considerably, in some instances, from the specimen published by MARSDEN, in the sixth volume of the *Archæologia*.

The *Batta* language has been cultivated by writing, from the earliest times, and numerous books are said to exist in it. I have only been able, however, to procure the names of the following—

1. Siva Marangaja,
2. Siva-Jarang-Mundopa,
3. Raja Isiri,
4. Malamdeva.

The *Batta* alphabet is peculiar, both in the form of its characters, and in the order of their arrangement. It consists of nineteen letters, each of which is variable by six vocalic sounds like the *Búgís*. In the power of the letters, it nearly corresponds with the *Búgís* and *Javanese* alphabets, the difference between all these being extremely trifling, consisting solely in

one of them expressing two cognate sounds by one character, or adding a new character, or the modification of a character, to express a double consonant of frequent recurrence. But the *Batta* character has another peculiarity; it is written neither from right to left, nor from left to right, nor from top to bottom, but, in a manner directly opposite to that of the *Chinese*, from the bottom to the top of the line, as the *Mexicans* are said to have arranged their hieroglyphics. The material for writing is a bamboo, or the branch of a tree, and the instrument for writing the point of a *kris*, consequently their native forests always furnish them with materials in abundance, and instead of our pages and volumes, they have their bamboos and literary faggots. MARSDEN has given a tolerably correct *Batta* alphabet, in his history of *Sumatra*, but instead of placing the characters in a perpendicular line, he has arranged them horizontally, which conveys an erroneous idea of their natural form. The *Battas*, sometimes, read their bamboos horizontally instead of perpendicularly, as the *Chinese* and *Japanese* do their books, but the *Chinese* consider the correct mode of reading to be from the top to the bottom of the page, and the *Battas* from the bottom to the top. The lines at the top of a *Chinese* page are always regular, and if a line terminates in the middle of the page, the blank space is towards the bottom; now the *Battas* sometimes write on growing trees; and in this case, if a blank space occurs, it is towards the top of the division, a circumstance which determines what they consider as the natural position of their characters. The *Batta* characters, when arranged in their proper position, have considerable analogy to the *Búgís* and *Tágála*. The *Lampúng* and *Rějang* characters coincide in power with those of the *Batta*, though the ar-

rangement is different, and so far from being considered as original alphabets, they are only regarded, as far as I could learn, by the *Battas*, as different forms of the same character. Indeed, the greater part of the differences they exhibit in form, may be fairly attributed to the different materials on which they write, and the different manner of writing; while the diversity in the number and arrangement of the letters may be referred to the same causes which have produced a similar variety in the *Búgís* alphabet.

VI. TAGÁLA.—The *Tagala* or rather *Tă-Gála* or the *Gala* language is among the *Phillipines*, what the *Malayu* is in the *Malay* islands or the *Hindostani* in *Hindostan* proper. A *Spanish* missionary, who possessed a minute knowledge of this language, has declared, that "The *Tăgála* possesses the combined advantages of the four principal languages in the world. It is mysterious as the *Hebrew;* it has articles for nouns, both appellative and proper, like the *Greek;* it is elegant and copious as the *Latin;* and equal to the *Italian*, as the language of compliment or business." To examine rigorously the justness of this eulogium, is foreign to my purpose; it is necessary only to state, that it is considered by those who have studied it with most attention, as the radical language, from which the greater part, if not all, the dialects of the *Philippines* are derived. A missionary, who had resided eighteen years in these islands, and whose account of them has been translated from the *Spanish*, and printed by THEVENOT in the second part of his "*Relations de divers Voyages Curieuses. Paris* 1664," declares, that though every district has its particular dialect, yet that these have all some relation to each other, such as subsists among the *Lombard*, *Sicilian*, and *Tuscan* dialects. There are six dialects of this kind, in the island of

Manila, and two in *Oton*. Some of these are current in several islands, but the most general are the *Tăgála* and *Bisaya*, the last of which is very gross and barbarous; but the other more refined and polished. The opinion of this missionary is confirmed by FRA. GASPAR DE SAN AUGUSTIN, who asserts, that all these particular tongues are dialects of one general language, in the same manner as the *Attic*, *Ionic*, and *Æolic*, are all dialects of *Greek*, or as the *Italian*, *Spanish*, *Portugueze*, and *French*, are all derivatives from the *Latin*.

The *Tăgála* language has been cultivated only by the *Spanish* missionaries. The *Tăgála* grammar of FRA. GASPAR DE SAN AUGUSTIN, which has passed through two editions, was printed in 1703, and again in 1787. In his preface, he requests those who are desirous of more numerous examples in the language, to have recourse to other grammars, especially to that of FRA. FRANCISCO DE SAN JOSEPH, who is elsewhere called the DEMOSTHENES of the *Tăgála* language. A confessional, by the same author, in *Spanish* and *Tăgála*, was published in 1713, and republished with the second edition of his grammar. In 1627, FRA. ALPHONSO *á* ST. ANNA published his "*Explicacion de la Doctrina Christiana en lingua Tăgála*," and, besides these, many other religious compositions, both in prose and verse, have been published by the missionaries.

The *Tagála* alphabet consists of seventeen letters, three of which are vowels, and fourteen consonants. It is of the same class as the *Búgís* and *Batta* alphabets, and resembles them much in form; and, it is probably from some idea of this similarity, that FRA. GASPAR DE SAN AUGUSTIN asserts that the *Tăgála* characters were derived from the *Malays*.

The *Tăgála* character is as difficult to read as it is easy to write. It is written with an iron style on bamboos and palm leaves, and the *Spanish* missionaries assert, that the ancient mode of writing was from top to bottom, like the *Chinese*. From the circumstance of their writing with an iron style on bamboos, and from the resemblance of the letters to the *Batta* character, I should rather imagine that the ancient *Tăgála* mode of writing was from the bottom to the top. The *Tăgála* characters are still used in *Comintan*, and in general among the *Tăgálas* who have not embraced christianity; and even by the *Christian* converts, they are still preferred in epistolary correspondence, though the contrary has been insinuated by some of the missionaries, who alledge that the roman alphabet was eagerly adopted, on account of its being more easily read.

The *Tăgála* language, with a considerable number of peculiar vocables, and great singularity of idiom, is nevertheless to be considered as a cognate language with *Malayu*, *Búgís* and *Javanese*. Few languages, on a cursory examination, present a greater appearance of originality than the *Tăgála*. Though a multitude of its terms agree precisely with those of the languages just enumerated, though the more simple idioms are precisely the same, and though the nouns have neither, properly speaking, genders, numbers nor cases, nor the verbs, moods, tenses or persons, yet the idioms are rendered so complex, and the simple terms are so much metamorphosed, by a variety of the most simple artifices, that it becomes quite impossible for a person who understands all the original words in a sentence, either to recognize them individually, or comprehend the meaning of the whole. In illustrating, therefore, the mechanism of

language, few languages are more instructive than the *Tăgála*. The artifices which it chiefly employs, are the prefixing or postfixing to simple vocables, certain particles, which are again combined, and coalesce with others; and the complete or partial repetition of terms, in this reduplication, may again be combined with other particles.

The *Tăgála* forms the plurals of nouns by the word *manga*, as the *Malays* by *banyâ'k*, both of which signify *many*, and seem to be the very same word, as the *m* and *b* are often pronounced in such an indistinct manner, in the *Indo-Chinese* languages, that they seem neither to correspond exactly to our *m* nor our *b*, but to an intermediate sound. To proper names, the *Tăgála* prefixes the particle *si*, and *ang* to appellative nouns. The first of these corresponds to the *Malayu sa*, and the latter to *yang*, both of which are frequently used in *Malayu* in the same manner; but the *Tăgála* combines both these with the particles *nya* and *ka*, the first of which signifies *of it*, and the latter *to;* and thus they form *sina, kana, nina, nang*, which (except the last, which is only a different mode of writing the *Malayu nyang, of these, who,*) scarcely occur in *Malayu*. The plural of nouns, in *Malayu*, is sometimes formed by the repetition of the singular, and sometimes this repetition is not complete, but consists only of the first syllable or syllables. This also occurs in the *Tăgála*, in which language *banal*, the *Malayu banar*, signifies *just, true*, and *tavo* signifies *a man*, corresponding with the *Búgís tau*. *A just man*, in *Tăgála*, is therefore, *ang banal na tavo*, or by the addition of another particle, and altering the position of the words, *ang tauong banal*. Now if we substitute the *Malayu* word *orang*, for the *Búgís* and *Tăgála* term *tau* or *tavo*, we may render both these sentences thus; *yang orang yang*

benar, and *yang benarnya orang*. In the plural, to signify, *just men*, the *Tăgála* gives, *ang manga tauong babanal*, to which the corresponding *Malayu* phrase is, *yang banyák orang yang babenar;* or again in *Tăgála*, *ang babanalna manga tavo*, to which the corresponding *Malayu* is, *yang babenarnya banyak orang*.

The simple pronouns, which vary so much in all the dialects of the eastern seas, are nearly the same in *Tăgála* and *Malayu*, though it is not very easy to recognize them in the former language when combined with particles. Thus in the first person *ako*, *ko*, *kita*, *kami* are pure *Malayu;* and in the second person, *mu* corresponds equally with *mo*, while *ikao* and *iyo* seem to be only trivial variations of the *Malayu ungkau* and *ayo*. In the third person *siya* is only a variety of *sa yéa* like *siappa* for *sa-appa*, *who*, in *Malayu;* while *niya*, *of him*, *his*, is pure *Malayu*, as are *itu*, *that*, and *nin of this*, while *yan*, *this*, and *yain*, *that*, correspond to *ini* and *anu*. It is however chiefly in the verb that the peculiar character of the *Tăgála* language displays itself. The substantive verb is generally omitted altogether, and its meaning is denoted by implication, or the position of the words in a sentence. Sometimes, however, it is expressed by the article *ay*, the contraction of the *Malayu adda*, as *Sino ang masipag? Who is diligent?* or rather, Who is he who is diligent? *Ang masipag ay si* JAGULA, *it is* JAGULA *that is diligent*, or literally, he who is diligent is one JAGULA.

The *Tăgála* verbs being only names of actions or states of existence, they cannot properly be said to be either active or passive, neither have they any persons, numbers or moods: all these being expressed by particles prefixed or postfixed to the radical word.

The principal particles employed in modifying the *Tăgála* verbs are also common to the *Malayu* language. The *Tăgála* particles are *na, nag, mag, pag, ungm, y, an, ín:* those which correspond to them in *Malayu* are *na, nyang, meng* or *mé, peng, yangmeng, yang, an, ahin.* Their significations are radically the same, nor do they differ essentially in their simple application; but in the variety of modes according to which these particles may be combined with the verb, in its simple form, in its reduplicate form, in its semi-reduplicate form, and the variety of transpositions of letters and the changes of one letter for another, *euphoniæ gratia,* which all these combinations give occasion to; in all these, the *Tăgála* is infinitely superior to the *Malayu,* if there is any merit in a superiority which consists in greater intricacy. The changes which occur in *Malayu* are few and obvious, in *Tăgála* they are digested into an extensive and complex system, in which perfect familiarity with every form that the word can assume, not only by the addition of particles, but by the interchange of letters, is necessary to enable a person to detect the radical, which is often more disguised than in the most complex *Arabic* derivatives. Thus in *Tăgála* the root, *tolog* signifies to sleep, *natalog ako,* I slept, *natotolog ako,* I am sleeping, *matalog,* sleep, *matotolog ako,* I will sleep, *katolog, pagkatolog* and *pagkakatolog,* sleeping, *natotologpa ako,* I slept or was sleeping, *ang natotolog* the sleeper, *ang matotolog,* the person who is to sleep, *nakatolog ako,* I had slept: *natologan,* the having been asleep, *natotologan,* the being asleep, *katologan* and *katotologan,* the being asleep, or act of sleeping, or the sleeping place: and for the plural *nangatologan, nangatotologan, pangatologan, pangatotologan,* &c. the particles *na, ma* and *pa,* becoming *nanga, manga* and *panga,* in the plural.—This is an instance in which the changes of the radical

word are very obvious; in the following they are less so, *buhat* to lift; *bungmuhat, bungmubuhat, bumuhat, bubuhat, pagbuhat, nakabuhat, nabuhat, binuhat, binubuhat, buhatin, bubuhatin, nagpabuhat, nagpapabuhat, magpabuhat, magpapabuhat, pagpabuhat, pagpapabuhat, pinabuhat, pinabubuhat, muhat, namuhat, namumahat, mamuhat, mamumuhat, pinamuhat, pinamamuhat, pamuhatin, pamumuhatin.* The addition of a greater number of particles would still produce a considerable number of additional metamorphoses, in which it would be very difficult to recognize the original radical *buhat;* but these may suffice to shew the genius of the language; and they will also tend to shew the extreme danger that any etymologist or grammarian incurs, who presumes to treat of one of the eastern languages without a radical knowledge of it, and even, in some degree, of its cognate dialects.

The greatest defects of FRA. GASPAR DE S. AUGUSTIN'S *Tăgála* grammar proceed from his not having comprehended sufficiently the original simplicity of the dialect, nor even the simple artifice by which the greater part of these changes have been effected; and from having composed his grammar on *European* principles, without attending uniformly to the peculiar character of the language.

With respect to the original literature of the *Tăgálas*, the accounts of the Spanish missionaries are rather discordant. Sometimes they represent them as totally devoid of histories, and books of science; and sometimes they represent them as in possession of many historical poems; not considering that almost the whole body of the eastern history must be gleaned from poetical tradition. It however appears, clearly enough, from their own accounts, that the ancient

religious traditions of the *Tăgála* race, their genealogies, and the feats of their gods and heroes, are carefully preserved in historical poems and songs, which, in their youth, they carefully commit to memory, and are accustomed to recite during labour and long voyages, but particularly at their festivals and solemn lamentations for the dead. These original memorials of the race, the missionaries have, with pious care, attempted to extirpate, and have employed themselves sedulously in composing religious tracts, both in prose and verse, in the *Tăgála*, with the hope of supplanting the remains of national and pagan antiquity. Many psalms and hymns, and even some of the *Greek* dramas composed by DIONYSIUS AREOPAGITA, have in this manner been translated into the *Tăgála* language. Among this brood of *Tăgála* poets, the names of FRA. ANTONIO DE S. GREGORIO, of FRA. ALONSO DE S. ANA, and of FRA. PABLO CLAIN, the translator of *Kempis*, into *Tăgála*, are celebrated, but the most illustrious of them all, says the reverend father GASPAR DE S. AUGUSTIN, is FRA. PEDRO DE HERRERA, the very HORACE of the *Tăgála* language, as appears by his book of "*Postrimerias*." With the original *Tăgála* poetry I am unacquainted, and I believe no specimen of it has been hitherto published. S. AUGUSTIN, in his grammar, treats, indeed, of *Tăgálá* poetry, but he piously confines his examples to the works of his ghostly brethren. He observes, that the *Tăgálá* verse, is regulated by the rhythm of the syllables, and the similarity of the vowels in the close. This similarity of the terminating vowels does not amount to regular rhyme, for the consonants may be totally different, though the vowels are similar, as in the *Spanish* rhymes termed *Asonantes*. Thus *laglag* and *taltal sút* and *cahuy, silip* and *bukkir*, however imperfect as rhymes, are all that is required in the termi-

nations of *Tăgála* verse. The *Tăgála* metres, adds the same author, are rather lyric than heroic, and he adduces specimens of several *Latin* and *Castilian* measures, imitated in that language, besides a legitimate sonnet addressed to himself, on publishing his *Tăgála* grammar by FRA. JOSEPH DE EL VALLE. The following specimen from the *Tăgála* version of one of the dramas of DIONYSIUS AREOPAGITA, is an imitation of the comic verse of TERENCE.

Dito sa dakkilang kaharian nang *Grecia*
Ay itong bayannang *Athenas* lalo, at mona
Sa ibang manga bayang na sasakop baga
Hangan saona, at magpangayon pa.

BESIDES the *Tăgála* nation, there are several other races, which inhabit these islands, who differ considerably from each other in features, language, and the various relations of the social state; but concerning them, it is more difficult to speak with any degree of certainty. Such are the *Pampangos*, who reside to the north of *Manilla;* the *Bisáyas*, who are generally diffused over the *Philippines;* and the painted race, termed, by the *Spaniards*, *Pintados*, who are, by some, reckoned a branch of the *Bisáya* nation, and allied to the *Tăgála* and *Búgis* races; while, by others, they are supposed to be of the same origin as the *Haraforas.*

Of the *Bisáya* language, I have seen some lists of words. It appears to be either mixed with *Tăgála*, or derived from the same source; but it is seldom possible to judge of any of the eastern languages from a few straggling specimens, formed in the hurried, inaccurate and incurious manner in which these are generally collected. For this reason, I shall offer no observations on the *Pampango* language, of which I have also seen specimens; on the *Biaju*, *Tirún*, or

Idán languages of *Borneo;* nor on the *Harafora*, or the *Papua* languages of the eastern isles. The *Súlú* tongue is a very mixed dialect, but is derived chiefly from the *Malayu*, *Javanese* and *Tăgála*. FORREST, however, is inclined to refer its peculiarities to the *Bisáya*. The language of *Melindenow*, or *Magindano*, which nearly coincides with the *Lanún* dialect, is also a compound of *Malayu*, *Búgís* and *Tăgála*, with a certain proportion of the ancient *Tarnata* or *Molucca* language, which seems to have been an original tongue. The *Biaju* language is reckoned original, but it has no written character. The *Biajús* are of two races; the one is settled on *Borneo*, and are a rude, but warlike and industrious nation, who reckon themselves the original possessors of the island of *Borneo*. The other is a species of sea-gypsies, or itinerant fishermen, who live in small covered boats, and enjoy a perpetual summer on the eastern ocean, shifting to leeward, from island to island, with the variations of the monsoon. In some of their customs, this singular race resemble the natives of the *Maldive* islands. The *Maldivians* annually launch a small bark, loaded with perfumes, gums, flowers and odoriferous wood, and turn it adrift at the mercy of the winds and waves, as an offering to the *Spirit of the winds;* and sometimes similar offerings are made to the spirit whom they term *the King of the Sea*. In like manner the *Biajus* perform their offering to the god of evil, launching a small bark, loaded with all the sins and misfortunes of the nation, which are imagined to fall on the unhappy crew that may be so unlucky as first to meet with it.

The *Tirún* or *Tedong* tribes live chiefly on the north east coast of *Borneo*, and are reckoned a savage and piratical race, addicted to eating

the flesh of their enemies. With their language I am totally unacquainted, but it is reckoned peculiar. It is very probable, however, that they are only a tribe of *Idán*, whom, again, I imagine to be only a race of *Haraforas* or *Alfoërs*, as they are termed by the *Dutch*, who seem to be the most original race of all the eastern islands, excepting perhaps, the *Papuas*. The *Idán* are sometimes termed *Marút;* they are certainly the original inhabitants of *Borneo*, and resemble the *Haraforas* equally in stature, agility, colour, and manners. The *Haraforas* are indigenous in almost all the eastern isles, and are sometimes found on the same island with the *Papuas* or oriental negroes. They are often lighter in colour than the *Muhammedan* races, and generally excel them in strength and activity. They are universally rude and unlettered, and where they have not been reduced to the state of slaves of the soil, their manners have a general resemblance. In their manners, the most singular feature is, the necessity imposed on every person, of some time in his life, embruing his hands in human blood; and in general among all their tribes, as well as the *Idán*, no person is permitted to marry till he can shew the skull of a man whom he has slaughtered. They eat the flesh of their enemies, like the *Battas*, and drink out of their skulls; and the ornaments of their houses are human skulls and teeth, which are, consequently, in great request among them, as formerly in *Sumatra*, the ancient inhabitants of which are said to have originally had no other money than the skulls of their enemies. The *Haraforas* are found in all the *Moluccas*, in *Celebes*, the *Philippines*, and *Magindano*, where they are termed *Subano* or *Manubo;* and the ferocious race mentioned by MARSDEN, who live inland from *Samanka* in *Sumatra*, and are accustomed to atone their

own faults by offering the heads of strangers to the chiefs of their villages, are probably of the same description.

The *Papuas*, termed by themselves *Igoloté*, but by the *Spaniards* of the *Philippines*, *negritos del monté*, from their colour and woolly hair, are the second race of aborigines, in the eastern isles; in several of which they are still to be found, and in all of which they seem to have originally existed. Some of their divisions have formed small savage states, and made some advances towards civilization; but the greater part of them, even with the example of more civilized races before their eyes, have betrayed no symptoms, either of a taste or capacity for improvement, and continue in their primitive state of nakedness, sleeping on trees, devoid of houses or cloathing, and subsisting on the spontaneous products of the forest, or the precarious success of their hunting and fishing. The natives of the *Andaman* isles seem to be of this race, as also the black mountaineer tribes of the *Malay* peninsula, termed at *Kiddeh*, *Samang*; at *Perak*, and in the *Malay* countries to the N. W. of *Kiddeh*, *Bila*; while to the southward of *Pera'k*, and through the straits of *Malacca*, to the eastward, they are termed *Dayak*. The *Papuas*, or oriental negroes, seem to be all divided into very small states or rather societies, very little connected with each other. Hence their language is broken into a multitude of dialects, which in process of time, by separation, accident, and oral corruption, have nearly lost all resemblance. The *Malays* of the peninsula, consider the language of the blacks of the hills as a mere jargon, which can only be compared to the chattering of large birds; and the *Papua* dialects, in many of the eastern isles, are generally viewed in the same light.

The *Arabs*, in their early voyages, appear to have frequently encountered the *Papuas*, whom they describe in the most frightful colours, and constantly represent as cannibals. They are mentioned by the travellers IBN WAHAB and ABU ZEÏD, in the *Silsilet-al-Tuarikh*, translated by RENAUDOT, and nearly the same accounts seem to be repeated by MASUDI, YAKUTI, and IBN AL WARDI. The following passage, which gives the name of one of the tribes, is adduced from the *Persic* treatise termed *Seir ul Aklim*, the author of which appears to have visited the eastern islands. After mentioning the great island of camphor, probably *Borneo*, he adds, "Beyond this are other islands of different sizes, among which there is one of considerable extent, inhabited by a race of blacks termed *Kahâlut*, who resemble brutes in form, and when they can seize on a person, they kill and eat him. Of this practice, I have had experience, having escaped only by throwing myself into the sea; as the saying is, 'when you are going to be slain, throw yourself into the sea, and perhaps you may survive.' Even so it happened to me, for getting on the trunk of a large tree, I kept my hold for three days, when I was thrown by the force of the winds and waves on a desert shore, and after enduring much hunger and thirst, reached at last an inhabited country."

The tribes of the eastern islands exhibit a variety of singular and interesting appearances, not only in the civil and political, but also in the natural and moral history of man. If some of them appear in a naked and primitive state of barbarism, in others the vestiges of ancient art and science indicate, that they have suffered a relapse from a prior state of civilization. This is particularly obvious among the *Malay*, *Java-*

nese, *Batta*, and *Búgís* tribes, among whom the polished style, and elevated sentiments, of many of their compositions, and their dexterity in some of the arts, especially the compounding and working of metals form a singular contrast with the neglect of personal morality and the relaxation of all the bonds of society; while ancient and wise regulations are in a great measure superseded by the most absurd and barbarous usages. Among the most barbarous of the *Harafora* and *Papua* races, there are some, who whether male or female, use no species of cloathing whatsoever, and consequently exhibit few traces of that modesty which is supposed to be innate in the human species. The same phænomenon, whether natural or produced by situation, is exhibited among the *Biajus*, the families of whom live constantly together, on the sea, in small boats. Vestiges of cannibalism appear to exist among the greater part of the rude tribes in the eastern isles, but the *Battas* of *Sumatra*, who are superior to the *Malays* in the knowledge of the arts and letters, have likewise preserved it; as well as the *Tabúnka* tribe in *Celebes*. Of many of the most absurd, unnatural, and barbarous of their usages, it is obviously impossible to form a just opinion in the present state of our knowledge, as we are totally ignorant of the spirit of them, and of the system of opinions with which they are connected. Some of them may find a parallel in *India* and *China*; and it may be observed, that both the *Indian* and the *Indo-Chinese* monuments contain many allusions to a state of society and manners on the continent, similar to that which subsists among the most babarous of the tribes of the eastern isles. Perhaps, too, we shall be disposed to regard, with some degree of complacency, the most absurd and the most illiberal portions of the religious systems of BRAHMA and

BUDD'HA, if we consider the dreadful superstitions that they probably supplanted, and the brutal state of savage existence which they exchanged for civil polity and social order. The *Vanaras* of *Hunúman* are reckoned a tribe of mountaineers, even by many of the *Hindús*. The barbarous, but brave and active *Idán* of *Borneo*, are termed *Marút*, which is the *Sanscrit* name of the forty-nine regents of the winds, and companions of INDRA. The standard of the *Battas* is a horse's head with a flowing mane, which seems to indicate a connection with the *Hayagrivas* of *Sanscrit* history. In the present state of our knowledge of these tribes, however, it is not conjecture, but rigid and accurate description that is required; and in the present instance, it is not my object to consider their civil, political, or moral relations, unless as far as these affect the philological investigation of their languages and literature. As the chief utility that results from the examination of some of these ruder dialects, is to enable us to ascertain the limits of languages, more interesting and important, perhaps it may be thought that great minuteness would be misapplied on objects of such secondary importance. It must, however, be recollected, that success in important researches, often depends on the accuracy with which inferior investigations have been conducted; that in commencing an investigation it is not always easy to predict what will ultimately prove of superior, or inferior importance; and that, at all events, it is safer to bestow too much attention, than too little, on what must be the basis of historical investigation. In all such inquiries, I therefore do not hesitate to adopt the sentiment of the learned LE LONG, that "Truth is so interesting and satisfactory, when perceived, that no pains should be spared to discover it, even in the smallest matters."

VII. RUKHE'NG.—The *Rukhéng* is the first of that singular class of *Indo-Chinese* languages, which may be properly termed monosyllabic, from the mass of their radical words consisting of monosyllables, like the spoken dialects of *China*. These monosyllables are subjected to great variety of accent and intonation, in almost every instance: and require an accuracy of pronunciation and a delicacy of ear in speaking and comprehending them, far beyond what is requisite in the languages of *Europe*, or even in the polysyllabic languages of *Asia*. The *Indo-Chinese* languages of the monosyllabic class, borrow a considerable variety of terms from the *Pali* or *Bali*, which exists among them, as the language of learning and science; but in adopting these polysyllables, they accommodate them to their peculiar enunciation, by pronouncing every syllable as a distinct word. The *Rukhéng* is the language of the original inhabitants of *Arakan*, who adhere to the tenets of BUDD'HA. Forming in ancient times a part of the empire of *Magadha*, from which they seem to have derived the name of *Mug* or *Mauga*, by which they are generally termed by the inhabitants of *Bengal;* and being from their situation more immediately connected with *India;* their language is by no means purely monosyllabic, but forms, as it were, the connecting link between the polysyllabic and monosyllabic languages. The *Rukhéng* race is admitted to be of the same radical stock as the *Barmas* or *Birmans*, and is understood to have greatly preceded that nation in civilization. The *Barmas*, indeed, derive their own origin from the *Rukhéng*, whom they generally denominate *Barmá kyí*, or the great *Barmas*, and they consider the *Rukhéng* as the most ancient and original dialect of the *Barma* language. This idea is certainly correct, and it may be added,

that the *Rukhéng* orthography and pronunciation are neither so defective, nor so much corrupted as the *Barma*, and that consequently, in tracing the history of the language, the *Rukhéng* is of much greater utility to the philologist. In another respect the language may be considered as purer; until their late conquest by the *Barmas*, the tribes of *Rukhéng* seem for a long period to have retained their independence, while the proper *Barma* tribes have suffered various revolutions. Hence the *Rukhéng* retains more of its ancient form, and is less corrupted by foreign mixtures. The modifications, therefore, which it has received, are chiefly derived from the *Pali* or *Bali*, which was cultivated in the country as the learned language, and contained all their sacred books. The *Rukhéng* has accordingly adopted *Bali* words and phrases more copiously than the *Barma*, and has also preserved them in a greater state of orthographical purity. The pronunciation of the *Rukhéng* is perhaps broader and grosser, but more articulate than the *Barma;* in particular it strongly affects the use of the letter *r*, which the *Barmas* generally convert into *y*, in their pronunciation. Such, however, is the difference of pronunciation between the two nations, that even in sentences, where the words are nearly the same, they are not easily intelligible to each other.

The *Rukhéng* alphabet coincides accurately with the *Deva-nagari* system of characters in its arrangement, and very nearly in the power of the particular letters. The only variation of importance is, the expression of both the acute and grave accent of the vowels, as well as their common sound, in certain cases. This provision, however, does not extend to

all the vocalic sounds in the *Rukhéng* alphabet, but only to those sounds of this species, which are of most general use. A similar contrivance for the expression of accent, occurs in all the alphabets of the monosyllabic languages, but varies, in extent, according to the exigencies of a particular language. Thus, in *Rukhéng*, after the simple alphabet, follow the combinations of the simple letters, with *wa*, *ya*, *ra*, and of *h* preceding them. Then follow some triple combinations of the same letters, after which are exhibited the common forms of syllables which terminate in a consonant, as *ak*, *ang*, *aích*, *a't*, *a'p*, and others of a similar kind; and finally the varieties of accent, as acute and grave, are presented, in those vowels and nasals which are chiefly subject to be influenced by them.

The *Rukhéng* character has considerable similarity to the *Barma*, in the greater part of its letters. The following simple characters, however, *g'ha*, *ja*, *j'ha*, *ña*, *ta*, *t'ha*, *da*, *d'ha*, *na*, *'d'ha*, *ra*, *lla*, as well as some of the more complex combinations, differ greatly from the respective forms of these characters in the *Barma* alphabet, and exhibit considerable resemblance to some of the ancient *Canara* characters. The *Rukhéng* simple alphabet is exhibited with considerable correctness by Capt. J. Towers, in the fifth volume of the Asiatic Researches, though many of his particular observations, as well as general views, are far from being accurate; chiefly, it may be presumed, from the novelty of the investigation.

The *Rukhéng* language, in the simplicity of its structure and expression, has great analogy to the *Malayu*. It has properly no numbers,

cases, nor flections, in its nouns; nor conjugations, moods, tenses, or persons, in its verbs. Many words have a substantive, adjective, or verbal signification, according to their position in a sentence; but in general, the names of objects, qualities, and actions, are sufficiently distinct from each other. The plurals of nouns are formed by numerals, or words expressive of plurality, as *lú, a man; lú-súng-rawk, three men; lú-ăkúng, many men; lú ăkúng-lúng, all men; mímma, a woman; mímma akúng-su, many women.* Comparisons are made by particles expressive of number or quantity, such as *myą*, or *mrét-té, much; akré* and *hlaré, very; prét, less, under; akúng, many.* Cases are expressed by particles equivalent to the prepositions or postpositions of other languages, or by juxta-position, which has often the force of the genitive in the *Rukhéng* language. Thus, *a man's hand*, may be expressed indifferently by *lú-lák, lú-hma-lak*, or *lú-chwá-lák.*

The simple pronouns are *nga*, I, *ko*, or *móng*, thou, and *yang-su*, he; the plurals of which are formed by the addition of *ro*, as *nga-ro, we; mong-ro, ye; yang-su-ro, they.* But in addition to these simple pronouns, there are various others, which indicate rank and situation, as in *Malayu, Chinese*, and the monosyllabic languages in general, which have all of them paid peculiar attention to the language of ceremony, in addressing superiors, inferiors, and equals. These ceremonial forms in *Rukhéng* are sometimes formed by particles added to the simple pronouns, and sometimes they are significant terms, such as servant, lord, highness, majesty, used pronominally, or rather in an absolute sense, without any expressed pronominal adjuncts; as in addressing a superior, when

the terms *asyang, lord, sir; sak'hang, highness; khang-părá, majesty,* are employed.

The pronouns in common use in *Rukhéng*, according to this variety of ceremonial forms, may be thus exhibited.

I, we,	*thou, ye,*	*he, they,*
nga,	kó,	dang,
nga-ro,	móng,	yang-su,
nga-ro-hma,	nang,	yang-su-ro,
kyĕwéng,	awey,	su-ro.
akyĕwéng,	mong-hma,	
akyĕwéng-hma,	mong-ro,	
akyĕwéng-ro,	mong-ro-hma,	
akyĕwéng-ro-hma,	nang-ro,	
akyĕwéng-tza-ré,	nang-hma,	
akyeweng tz'hang-ré-ro	nang-ro-hma,	
	awey-ro,	
	awey-hma,	
	awey-ro-hma,	

To explain the particular instances in which each of these pronominal terms is used, is not consistent with my present object, which is only to present a general outline of the structure of the language.

The moods and tenses of the verbs are in like manner expressed by means of particles, or significant words, like our auxiliary verbs. Such are *si, hi, hi-ré* and *le-hi, is; bri* and *lé yákk, is, been; bri-ré* and *bri-kha-ré, was; míy, will; ra* and *ra-mé, may, can; yaung, let, permit; hi-sua, been.* The position of these particles in a sentence, is often, however, a matter of considerable difficulty, and is one of the circumstances in which the elegance of style chiefly consists. The style chiefly affected in *Rukhéng* composition, is a species of measured prose, regulated by accent and the parallelism of the members of a

sentence. Rhyme, however, is not required, either in the terminating consonants or vowels, though it frequently occurs from the structure of the language. The general form of this measure seems to be four long syllables, each of which, however, is conversible into two short ones, or may have a short one interpolated before or after it. Thus, the passage adduced by Captain TOWERS, from the *Manú Saingwan*, as a specimen of his system of orthography in his "*Observations on the Alphabetical System of the Language of Awa and Rac'hain*," may be arranged.

Maha sámăta,
Man grí chak-kráwălá,
San'khra prain brain,
Tain dain pi' tá,
Tain-kha hnaik ch'haun,
Khré sō tăchhé,
Shai'ch pá só T'hám-mă-sát,
Cha ga do go, &c.

Sometimes, however, more complicated measures are employed in *Rukhéng* composition, in imitation of those which occur in *Balí*. Many interesting works are represented to exist in the *Rukhéng* language, but the greater part of them are translations from the *Balí*. The "*Tillawar Cherita*," is said to contain the historical traditions of the *Rukhéng* nation: the "*Karik*," composed by ANGULI-MALA, and the "*T'hamma-sat* or *Dherma Sastra*, contain their system of religious observances, and code of laws. The following is a list of the most popular *Rukhéng* compositions:

1. Raja-búntza,
2. Raja-wongtza,
3. Témi,
4. Némi,
5. Janaka,
6. Suwanna-asyang,
7. Bhuridat,
8. Tzaingdá-gúngma
9. Sada-shyei'ch-chaung,
10. Máhó,
11. Uni-nga-gyaing,
12. So'p-soung-gyéng,
13. Bhuridat-kapyá,
14. Bo-thi-hmain-déi,
15. Wé-faing-dara,
16. Saing-we-ra,

17. Krauk-ché,
18. Nara-cho,
19. Athi'k-bala,
20. Abhi-dam-ma,
21. K'hunei'ch-kyéng,
22. Para-ma-saing-gou'k-kyéng,
23. Maha-Raga-t'ha-kyéng,
24. Sapa-kyéng,
25. T'ham-ma-sat-kweing-khya,
26. T'ham-ma-sat-kra'k-ru,
27. T'ham-ma-sat-Manú,
28. T'ham-ma-sat-krudaing,
29. Logasara,
30. Sa-bri-hla,
31. Taing-t,haü,
32. Radana-hrwé-khri,
33. Radana-paing-gúng,
34. Rudana-paddaing,
35. Radana-kweing-khya,
36. Radana-powng-khyowk,
37. Ba-na't-sa,
38. [illegible]raing-ma-tei'ch-p'hak-powng-wat'hu,
39. [illegible]ga-tzí-săda-pring-do,
40. Ga[illegible]p'ha-kyéng,
41. Lakhana-di-ba,
42. Noma-kapya,
43. Nga-chaing-braing,
44. Rama-wut'hú-cha,
45. Brahmasara,
46. Bud-dho-wa-da,
47. Péda-sow't,
48. Mungăla-sow't,
49. Khunei'ch-ra'k,
50. Khunei'ch-ra'k-parei'p,
51. Patha-wi-jéya,
52. Sa-gra-ú-ch'howng,
53. Lé-keweng-u-ch'howng,
54. Sit-t'ha-da-nú,
55. Sat-powng,
56. Sat-yéng,
57. Sat-hnĕwaing,
58. Sa-hrwé-k'hé,
59. Moé-tó-krang-cha,
60. Gu-waing-podi-mowng-cha,
61. Thi-to-padé-sa,
62. Noma-ko-ga-tha,
63. Tăché-hnei'ch-ra-si,
64. Khowng-gri,
65. Khowng-láp,
66. Khowng-ngé,
67. Tă-hnaung-gra,
68. Mé-t'haung-gra,
69. Su-mé-t'ha,
70. Rewatta-cha,
71. Aswa-pida,
72. Prowng-bra,
73. Owng-pa-di-cha,
74. Paing-pru-cha,
75. Uga,
76. Mowng-chwa-cha,
77. Cho-ré,
78 Ya't-ré,
79. Lúng-di-cha.

From this list, it is evident, that the subjects of some of these works are the adventures of characters well known in *Sanscrit* mythology, as the *Rama Wut'hu* or history of RAMA, the *Budd'ho-wa-du* or history of the *Avatar* BUDD'HA; others of them seem to be

only *Rukhéng* versions of well known *Sanscrit* compositions, as the *T'hi-to-pa-désa*, or *Hitopadesa*, the *T'ham-ma-sut-Manu*, or *Dherma-sastra of* MENU. The *Suwanna-Asyang*, is the popular story of SUVURNA SPRINGI, or the golden cow, formed by the Bráhmen SUMBUKARA MISRA, and presented to Raja MUKUNDA DEVA CAJAPATI. The BHURIDAT is the history of Raja BHURIDATTA of *Magadha*, mentioned in the *Maha Bharata*, and the *Bhurìdat-kapya*, or *Bhuridutta-kavya*, is a poem on the same subject. The *Raja-buntza* is the *Rukhéng* edition of the *Raja-Vumsavali*, the *Raja-Wontgza* is a different work on the same subject, and the *P'at'ha-wi-jéya* seems to be the *Prit'thu-vijeya*. Of the modifications they have received in the process of translation, I have hitherto had little opportunity of judging, but as far as I have been able to investigate the subject, not only the style, but the incidents and progress of the *Sanscrit* narration is generally altered, to render them more illustrative of the ascetic doctrines of the *Budd'hist* sect; such as the guilt of killing animals, even accidentally; and the perfection acquired by *Rishis* in solitary retirement, by means of sublime penance and meditation.

The *Rukhéng* language has never been cultivated by *Europeans;* the observations on its alphabetical system by Captain TOWERS, and the short specimen of its vocables in Dr. FR. BUCHANAN's "*Comparative Vocabulary of some of the Languages spoken in the Burma Empire*," both in the 5th vol. of the Asiatic Researches, being all that has been published concerning it in any *European* language. The specimen given by Dr. FR. BUCHANAN, only varies from the *Barma* in seven words out of fifty, and these are only varieties of pronunciation, excepting "*looshee*,"

a child, which is also *Barma*, and *mateinay*, which seems to be an error, as it does not signify *to sit*, either in *Rukhéng* or *Barma*, but literally "*does not stand*," the proper *Rukhéng* term being *ra't chowk*. The words in the vocabulary certainly exist in *Rukhéng* as well as in *Barma*; but in some instances different words are in more general use, in the former; as *ahri, long*, instead of *shé*, and *po-mro-naing-grong, beast*, instead of *taraitzan*. The *Rukhéng* pronunciation, sometimes too, is modified by the *Burma*, and the letter *r* is almost always omitted in the specimen, though it is a distinguishing characteristic of the *Rukhéng* pronunciation. Thus, the *Rukhéng* requires *mri-gri, earth*, instead of *myœgyee*, in the specimen; *kri, great*, instead of *kyee*; *kripamó, foot*, instead of *kiœpamo*; *krow'k, six*, instead of *kiouk*; *kri*, a *star*, instead of *kyay*, and *ni, the sun*, instead of *nay*. These errors, however, are not to be attributed to Dr. Fr. Buchanan, nor detract, in the least, from the merit of his exertions in commencing the investigation; they evidently proceed from the inaccuracy, hurry, and indistinct pronunciation of his *Barma* assistants, and in his situation were perhaps not to be avoided, unless by attending to the native orthography.

Dr. F. Buchanan has also exhibited comparative specimens of two mixed dialects, spoken in *Arakan*; the first termed *Ruïnga*, spoken by the *Moslems* of the country, and consisting of a mixture of *Arabic, Hindi*, and *Rukhéng*; the second, termed *Rusán*, used by the *Hindús* of *Arakan*, who adhere to the system of Brahma, and formed by a large proportion of corrupted *Sanscrit* and *Bengali*, united to a comparatively small portion of *Rukhéng*. The dialect of the province of *Yo*, as it is pronounced by the *Barmas*, and *Ró* as it is termed by the *Rukhéng*, is

only a slight variation of the *Rukhéng*, which it approaches much nearer than the *Barma*. The range of mountains to the north and east of *Rukhéng* is inhabited by a race termed *Khéng*, by the *Ruk'héng* and *Barma* tribes, or as it is written by Dr. Fr. Buchanan, *Kiayn;* but who term themselves *Kolún*, and whose language is peculiar, having little or no affinity to either *Rukhéng* or *Barma*. From the two names, *Ró* and *Khéng*, the name of *Rukhéng* is generally derived; but the national name of the *Rukhéng* race is *Ma-rum-ma*, which seems to be only a corruption of *Maha-Vurma; Vurma* being an epithet generally assumed by the tribes of *Kshatriya* extraction. The inhabitants of the mountains between *Rukhéng* and *Chatigan* are termed *Sa-mowng-syang* by the *Rukhéng* tribes, and are asserted to speak a different language. They are probably only a division of the *Khéng* or *Kolún*. Whether these are the same with the *Kúkís*, who inhabit the high ranges of hills to the N. E. of *Chatigan*, I have not been able to determine. In the able and curious description of this singular race, given by J. Macrae, Esq. in the seventh volume of the Asiatic Researches, the languages of the *Kúkí* and *Múg*, or *Rukhéng* races, are said to be so intimately connected as to be mutually intelligible. That the two adjacent tribes should be mutually able to understand each other, is very probable; but that their respective languages are connected, in this instance, I apprehend to be very dubious; for in a specimen of above 500 radical terms of the *Kúkí*, which I owe to that gentleman's politeness, I find very few which are similar to the corresponding *Rukhéng*, or that were understood by an intellgent native of *Arakan*. The subject, however, requires further investigation, and there seems to be no person better qualified than Mr. Macrae, for

prosecuting the inquiry, both by his abilities, and his situation.

VIII. BARMA.—The *Barma* language is used by the great and powerful nation of the *Barmas*. The name of this nation has been written differently, by almost as many authors as have mentioned it, while no person seems to have thought it worth his while to inquire how the *Barmas* wrote their own name. This they constantly write *Barma*, though from affecting an indistinct pronunciation, they often term themselves *Byamma*, *Bomma*, and *Myamma*, which are only vocal corruptions of the written name. AMADUTIUS, however, in his preface to the "*Alphabetum Barmanum seu Bomanum*," with equal ignorance and confidence, denies flatly, that any nation, country, city, or language, exists, which by the natives themselves is denominated *Barma*. This name, he asserts to have been introduced solely by the ignorance and vicious pronunciation of *Europeans*, since, says he, by the analogy of the language, the nation is denominated *Bomah*, *the great nation*, from *bo*, *the head*, a chief, and *mah*, a man. This silly vapouring etymology is, however, entirely averse to the established orthography of the *Barmas* themselves, and only worthy of P. PAULINUS, or a modern *Frenchman*.

The *Barma* language, like the *Rukhéng*, in its original state appears to be purely monosyllabic, but it has borrowed freely from the *Bali*, and in imitation apparently of that language, it has sometimes formed words of some length, by the coalescing of its original monosyllables. Being completely devoid of every species of flection, whether in nouns, pronouns, or verbs, its construction is extremely simple, and depends almost solely on the principle of juxta-position, like its cognate dialect, the

Rukhéng, which it resembles in structure. Its pronouns and particles are peculiar, its idioms few and simple, and its metaphors of the most obvious kind; but it is copious in terms expressive of rank or dignity, and the rank of the speaker is characterized by the language he uses.

The *Barma* alphabet corresponds to the *Bali*, and is regulated by the same principles of accentua ion. In point of form, it has considerable resemblance to the *Canara*, *Singala*, and *Telinga* alphabets, but is rather more simple in the formation of the character. CARPANIUS, in his "*Alphabetum Barmanum seu Bomanum*," is inclined to derive the *Barma* character immediately from the square *Bali*, used in *Ava*, and both of them from the *Hebrew*, through the medium of the *Persic*. AMADUTIUS, improving on this idea, or rather adopting that of BAYER, seems to be desirous of deducing both, as well as the *Malabar* or *Malayalam*, from the *Armenian*, a character to which they have scarcely the remotest resemblance, and the orgin of which, is itself involved in great obscurity.

The character of the *Barma* language has a very considerable effect on the style of the compositions it contains. Repetitions of the same turn and expression, are rather affected, than shunned; and a kind of naked strength and simplicity of phrase, with short sentences, pregnant with meaning, are the greatest beauties which the language admits of. "The *Bomans*," says CARPANIUS, "in their poetry, are more careful of preserving similar terminations, than an equal number of syllables, and use this style, particularly in treating of religious subjects." The fact, however, is, that the similarity of termination is neither sought, nor shunned; but recurs from the genius of the language, very frequently. The

style of the principal *Barma* compositions is a species of measured prose, regulated almost solely by the accent, as in the *Rukhéng*, the different dialects of *Chinese*, and the other monosyllabic languages. The tone of polished conversation requires an approximation to this style of composition. The verb is generally placed in the close of the sentence, and the defect of conjuctive particles, to connect the different members of a sentence, renders a considerable degree of repetition absolutely necessary to prevent confusion.

The *Barma* language has been highly cultivated in composition, and contains numerous works in religion and science. Besides numerous books on astrology, mythology, medicine, and law, in the latter of which the most important is the *Dam ma-Sat kyee*, or great system of justice, with the Constitutions of the *Barma* princes. The *Barmas* are asserted, by Dr. BUCHANAN, to possess numerous historical works, relative to the different dynasties of their princes, the most celebrated of which is the *Maha-raja-Wayngee*. "These people," says he, "have also translated histories of the *Chinese* and *Siamese*, and of the kingdoms of *Kathee*, *Koshan-pyee*, *Pagoo*, *Saymmay* and *Laynzayn*." On the importance of such works, supposing them to be strictly of a historical nature, it is needless to dilate. It appears probable, however, that many of them may resemble the *Hindú Cheritrás*. The *Barmas* possess numerous smaller poems and songs, and even *natakas*, which may probably be derived from *Sanscrit* tradition, as the adventures of RAMA in *Lunka*, are favourite topics in their dramas. The following are some of the most popular works in the *Barma* language, and several of them, I find, exist equally in *Rukhéng*, *Siamese* and *Malayu*.

Some of them are purely mythological, but others are *Cheritrâs* of the historical class.

1. Jina-Mana,
2. Nunda-Jina,
3. Nundaguma,
4. Chundaguma,
5. Narada,
6. Temi,
7. Nemi,
8. D'hammapada,
9. Namagara,
10. Logasara,
11. Longanit'hi,
12. Maho-Sut'ha,
13. Wesundura, or story of Rajah Vesundara,
14. Paramik'han,
15. Chudongk'han,
16. Bungk'han,
17. Kado-k'han,
18. Chatu Damasara,
19. Sangwara, termed in Siamese, the Sut'hon,
20. Bhuridat,
21. Kinara-pyeu, or account of the celestial Kinara,
22. Malinméng Wut'hu, or history of Rajah Malin,
43. Jinaka, or history or Rajah Jinaka, denominated in Siamese Maha-Chinók,
24. Yuwají, termed in Ruk'héng Ruari,
25. Swipri-wéng-kha
26. To-twék-k'han,
27. Munigungsala,
28. Anusasana,
29. Suan-nashan,
30. Wit'hora,
31. Kagileinga,
32. Sada-syi'ch-chaung,
35. Anaga-atwéng,
34. Ngare-khan or descriptio Naraka,
25. Attagatt-lénga,
36. Hmát-chew' bón'g.

The *Barma* language has some variety of pronunciation in the different provinces of that empire. The dialect of the *Yó*, situated on the east of the *Arakan* mountains, has been already noticed. The *Tanéngsari*, or language of the inhabitants of the *Tanaserim* district, denominated *Tinnaw* by the *Siamese*, also differs considerably from the common *Barma*. The *Tanéngsari* certainly have many peculiarities of expression, and many words in common use among

them, are at present obsolete among the *Barmas* of *Ava*, but the majority of them are to be found in the *Barma* writings, and the *Tanéngsári* are therefore reckoned to use an obsolete dialect, rather than a peculiar language. I have already mentioned in what respects the *Barma* and *Rukhéng* are related to each other. The following comparative list of terms will show more particularly the extent of their difference in current use.

	Rukhéng.	*Barma.*
Month	khanang	piját
back	nau-kúng	naó
knee	pa-chhei'ch-tú	du
bone	aro	ayo
heart	alúng	na-towng
seeing	mrang-ré sú	myang-su-ha
smell	kaing-ré	chan-jan
touch	pait-té	seing-su-ha, thí
trouble	ma-ré	khék
strength	akri	akyan
marriage	maya-ni-chá'p-té	lék-t'hat-gya,
life	ahrang	asyang
circle	apawk	akwéng
storm	mukri	moseik
hail	mu-gyowk	mó-si
morning	mă-sowk-tha, nyí-ga	mă-neik,
evening	nya-ja	nya-né, né-é
sea	mreik	péng-lé
dust	mré-moh	amóng, myé-mong
mud	ta-mai	suin
fire	míng	mi
length	hré	shi
ditch	mroung	kewng
gold	hruí	sué
silver	muë	ngoé
horse	mroung	miyin
fowl	krak	kyiuk
cock	krak-p'ha	kyiuk-t'hí
hen	krak-ma	kyiuk-ma
snake	mrui	myewé
sail	rowak	yewék

	Rukhéng.	*Barma.*
bed	săloëng	kadeng
taylor	ang-gí-dap	khyowk-sama
white	aprú	pyú
hard	kyang	má
vegetable	haung sei'ch ruakk	heing-ewék
first	ayenga ăkha	ayeng-su-ha / ayeng-da-ha
second	hnei'ch-khu-chowng	hnei'ch-khu-su-h
I	akyeweng-hma	kyewen-noú'p
we	akyeweng-ro-hma	kyewen-do
thou	mong	méng
you	mong-ro	méng-do
he	yang-su	su
they	yang-su-ro	su-do
this	dé-ga	di-ha
that	t'ho-ga	ho-ha
who	ău	bélú
what	jàma	baha
which	ăsu	bésû, béha
if	t'ho-shyang	hléang
though	la-lá't-hléukk	phye'ch-hleang
about	le'khi-gra't-me	pát
many	akúng,	apóng
perhaps	kaing-ra-bya	kán-hné
yes	how't-payak	hou't-ké
no	ma-hí	ma-si
is	hí	si
was	bri	pyi
has been	hi-yak	si-bi
I ought to do it	akyeweng-louk-kowng-yak	kewen-noú'p-louk-gowng-dé
I will do it	akyeweng-ro-hma louk-ra-ré	kewen-noú'p louk-ya-dé

The *Barma* affects a more delicate, but at the same time inarticulate pronunciation than the *Rukhéng*, and less conformable to the actual orthography of the language. This is particularly obvious in the conversion of *ra* into *ya* in *Barma;* but the *Rukhéng* itself is not devoid of its peculiarities, among which may be mentioned the conversion of *sha* into *ha.*

Thus the word which is written *shré*, in both languages, is in *Barma* pronounced *syi*, and in *Rukhéng hri*.

The specimens which Dr. BUCHANAN has exhibited of the languages of the *Kariéng* or *Karayn*, as he writes it, and of the *Kiayn* (which seems to be the same word softened in the pronunciation,) the rude tribe which denominates itself *Kolún*, certainly show considerable analogy to exist between these dialects and the *Barma* proper. Some *Barma* words seem, likewise, to be discoverable, in the specimen he has given of the language of the *Moitay*, or inhabitants of *Kassay*, as *mee*, *fire*, *nga*, *fish*; and more copious and correct vocabularies, with a more exact orthography, would probably exhibit a more intimate connection; but a certain degree of acquaintance with the grammatical principles of every language, and with its alphabet and orthography, if a written one, is absolutely necessary to give any philological value to a specimen of its words. The inhabitants of the *Nikobar* islands are sometimes represented by those who have visited them, as speaking a language which is radically *Barma*, while, by others, it is reckoned *Malayu*. If FONTANA's short vocabulary (Asiatick Researches, Vol. III.) can be depended on, the *Nikobar* language seems to have very little connection with either the one or the other; as it does not appear to contain above two or three words which can with certainty be referred to either of them.

The *Barma* language has been little cultivated by *Europeans*, excepting the Catholic Missionaries. The "*Alphabetum Barmanum*," digested by CARPANIUS, was published at *Rome* in 1776. CARPANIUS mentions, in his preliminary dissertation, that, at that

period, a grammar and vocabulary of the *Barma* language had been prepared by P. Joh. Maria Percoto, Bishop of *Méssola*, which seems never to have been published. In the preface to the same work, Amadutius mentions, that the gospel of St. Mathew, and the epistles of St. Paul, had been rendered into the *Barma* language, together with the "*Evangelia dierum omnium Dominicalium*," "*Epistola Dogmatica, et Dialogus inter Missionarium et Talapoinum.*" T. Paulinus, also mentions among the *Borgian* MSS. a dialogue between a savage *Khien* and an *Ex-Talapoin*, written in the *Italian* language by D. Cajetanus Mantegatius, the object of which is to expose the doctrine of the *Talapoins*, as contained in the books of the *Barmas*. *Khien* seems to be the name of the rude tribe termed *Khéng* by *Moslem* writers, and *Kiayn* by Dr. Buchanan; and the work itself, the translation of a composition circulated among the converted *Barmas* by the catholic missionaries. The *Talapoins* seem, however, to have retaliated on the missionaries; and Dr. Fr. Buchanan has printed Vincentius Sangermano's translation of "*A view of the Religion of* Godama," composed by Atuli Zarabo, for the express purpose of converting the Christians, in which the *English*, *Dutch*, *Armenians*, and other nations are exhorted to adore Godama, the true God; to adore, also, his law and his priests, to be solicitous in the giving of alms and in the observance of *Sila*, and in performing *Bavana*.

IX. Môn.—The *Môn* language is still used by the original inhabitants of *Pegu*, who denominate themselves *Môn*, though by the *Barmas* they are termed *Taleing*, and, by the *Siamese*, *Ming-môn*. This language has never been cultivated by *Europeans*, and the only specimen of it, known to me, is that printed by Dr. Fr. Buchanan, (Asiatic Researches, Vol. V.)

It seems to be quite original, and is said by the *Barmas* and *Siamese* to have no affinity with either of their languages. I have met no learned man of the race, nor have had any opportunity of cultivating the language, but I have been informed by a *Talapoin* that they possess many ancient histories in this language; which is not impossible, as they seem to have attained civilization, at a more early period than the *Barmas;* and, though now reduced, to have been formerly a great and potent nation. In the early *Portugueze* histories they are denominated the *Pandálús* of *Món;* and they are supposed to have founded the ancient *Kalaminham* empire, at a very early period. The name *Kalaminham*, mentioned by the *Portugueze*, is probably connected with the *Siamese* name of the nation, *Ming-môn*. The *Món* alphabet, if I can depend on the specimens of the character shown me by a *Barman* of some learning, is only a slight variety of the *Barma-Báli*, with which it corresponds, in the power and arrangement, as well as the form of the characters. I have, however, had little opportunity of investigating this subject; and, expecting to have visited *Pegu*, did not avail myself of that opportunity to the fullest extent. The examination of the *Món* character and language, has no peculiar difficulty, and may be easily accomplished by the first literary inquirer who may visit *Pegu;* and I still indulge the hope that my future inquiries may be attended with success in investigating their relations.

X. THAY. — The *Thay* language is that which is used by the *Siamese*, who, in their own tongue, assume this name as their national appellation. By the *Barmas*, they are denominated *Syan*, from whence the *Portugueze* seem to have borrowed their *Siam* and *Siaom*, from whom

the other nations of *Europe* have adopted the term. La Loubere, who visited *Siam* in 1687-8, as Envoy Extraordinary from the *French* monarch, has given incomparably the most accurate account, that has ever been exhibited, of this nation, formerly reckoned the most polished of eastern *India*. He divides them into two races, the *Tai* and the *Tai Yai*. The latter nation, he adds, are reckoned savages, though the most ancient. Their name signifies literally *the great Tai*, and in order to distinguish themselves from this nation, the ruling race, in modern *Siam*, assume the name of *Tái-noë, the little Tai*. Dr. Fr. Buchanan, however, on the authority of the information he received in the *Barma* dominions, divides the *Siamese* race into many states; and gives a specimen of the vocables of three dialects. This brief vocabulary, with La Loubere's observations on the *Siamese* language, and "*The maxims of the Talapoins*," translated out of *Siamese* by the catholic missionaries, which he has published in his "*Historical Relation of the Kingdom of Siam*," constitute all that has been published, respecting the language or literature of this nation, in any *European* tongue. The result of my own inquiries certainly coincides more directly with La Loubere's information, than with that received, by Dr. Fr. Buchanan. All the intelligent *Siamese*, whom I have met, and among these, there were *Talapoins*, both of the *Tai* and the *Tai-yai* race, agree in asserting, that the *Siamese* nation, properly so called, consists of two tribes, the *T'hay* and the *T'háy-j'hay*, for so the names are properly written. Of these the most ancient are the *T'hay-j'hay*, formerly famous for their learning, and the power of their empire. It is added, that many monuments of this ancient race exist in the kingdom of *Siam;* and I was informed, in particular, that in the vicinity of *Ligór*,

about five days journey from *Trang*, there are various ancient inscriptions, on stone, among the ruins of a very ancient temple, which are attributed to the *T'hay-j'hay*, but which no person among the modern *T'hay* is able to decypher. The *T'hay* language, or *Siamese*, as it is written by these two races, does not differ essentially; but the spoken dialect among the *T'hay j'hay*, is much more strongly accented, than among the *T'hay* proper, or the present ruling race of *Siam*. The *T'hay j'hay* inhabit the country between the *Me-nam* and the *Me-kon*, or river of *Cambodia*; but the *T'hay*, for the most part, inhabit on the west of the *Me-nam*, or between that river and the frontiers of the *Tinnaw*, *Mon*, and *Barma* nations. As to the *Tai-loong*, of whose vocabulary Dr. BUCHANAN has given a specimen, all the *Siamese* that I have met, though they admit that a district is denominated by this appellation, unanimously deny, that there is either a race of men, or a dialect of the language, which bears this name. The words themselves, which Dr. FR. BUCHANAN adduces, as specimens either of the *Tai loong* or the *Tai-yay*, are pure *T'hay*, whenever they are not auricular corruptions of pronunciation, or words of different meaning, introduced, apparently, by the interpreter's misapprehension of the sense required to be expressed. Having myself been frequently exposed to similar misapprehensions, and knowing, from experience, the difficulty of avoiding it, especially in languages, in which not only the signification varies, with such delicate shades of pronunciation, as are almost undistinguishable to an *European* ear, but the train of ideas themselves, is regulated by such a subtile, and as it were hieroglyphical set of principles, I am far from insinuating any carelessness in Dr. FR. BUCHANAN, whose comparative vocabulary is the first at-

tempt to classify these languages; but I am attempting to account for the mistakes, into which he seems to have been inevitably led, by the misapprehension of his interpreters. Thus, *moo* signifies *the hand*, in *T'hay*, and *paw-moo*, which he exhibits as the *Tailoong* variation, is only *Fa-mŭ*, *the palm of the hand*, in the proper language: *Kén*, which he writes *kayn*, signifies the *arm*, in *T'hay* or *Siamese* proper, and in the same language, *komooee*, which he gives as the *Tai-yay* synonime, signifies *the lower part of the arm*, from the elbow to the wrist, and *moo*, the *Tailoong* synonime, signifies *the hand*; *Tín*, signifies *the leg*, in *Siamese*; but *naung*, which he gives as the *Tai-nay*, signifies *the skin*; and *koteen*, the *Tai-yay* synonime, *the joints of the leg*; in the same manner *langteen*, which he gives as the *Tai-nay*, or common *Siamese*, for *foot*, signifies literally *the upper part of the foot*; and *Swateen*, the *Tai-nay* synonime, appears to be a mispronunciation of *Fatín*, *the under part of the foot*. *Sätt* signifies a *beast*, or animal, and *nook*, the *Tai-yay* synonime, is only a mispronunciation of *nók*, a *bird*, as are *noup* and *naut*, the *Tai-nay* and *Tai yay* words, which are given to signify a *bird*; *Pawk* signifies the *mouth*, but *tsop*, given as the *Tai-yay* synonime, is a mispronunciation of *tsot*, *to drink*; *San* signifies *short*, but *lot*, the *Tai-yay* synonime, signifies *child*, and *unlot*, the *Tailoong* synonime, *one child*; *yoon* signifies *to stand*, but *loot-sook*, the *Tai-yay* synonime mispronounced, signifies *to rise up*; and *Peinung*, the *Tailoong* synonime, *go sit*; *seeza*, *the head*, is not *Siamese*, but *Balí*, and the *Tay-yay* synonime *ho* and the *Tailoong*, *hoo*, are only mispronunciations of the proper *T'hay* term *huă*. It may be proper also to observe here, that Dr. Fr. Buchanan has printed *Tay-nay* instead of the *Tai-noë* of La Loubere, which signifies *little Siamese*; whereas *Tay-nay* cannot possibly

signify *little Siamese*, but only *chief Siamese;* the true meaning of *nay*, being *chief* or *head*. It is a term of similar import with *nayen*, *nayer* and *nayenmar*, used in *Malabar*, as the appellation of the military cast, or *naya-ka*, in *Sanscrit*.

The *T'hay* or *Siamese* language appears to be in a great measure original; and is more purely monosyllabic, and more powerfully accented, than any of the *Indo-Chinese* languages, already mentioned. It certainly is connected, in some degree, with some of the *Chinese* dialects; especially the *Mandarin* or *Court language*, with which its numerals, as well as some other terms, coincide, but these are not very numerous. It borrows words freely from the *Bali*, but contracts and disguises more, the terms which it adopts, than either the *Ruk'héng* or the *Barma*. In its finely modulated intonations of sound, in its expression of the rank of the speaker, by the simple pronouns, which he uses, in the copiousness of the language of civility, and the mode of expressing esteem and adulation, this language resembles the *Chinese* dialects, with which also, it coincides more nearly in construction than either *Barma* or *Rukhéng*. Its construction is simple and inartificial, depending almost solely on the principle of juxta-position. Relative pronouns are not in the language; the nominative regularly precedes the verb, and the verb precedes the case which it governs. When two substantives come together, the last of them is for the most part supposed to be in the genitive. This idiom is consonant to the *Malayu*, though not to the *Barma* or *Ruk'héng*, in which, as in *English*, the first substantive has a possessive signification. Thus, the phrase, "*a man's head*," is expressed in *Barma* and *Ruk'héng*, by *lú-k'haung*, which is literally *man-*

head; but, in *Siamese,* it it is *kuă-khon,* and in *Malayu, kapala orang,* both of which are literally *headman.* A similar difference occurs in the position of the accusative with an active verb, which case, in *Barma* and *Malayu,* generally precedes the verb, as *tummaing chá,* literally *rice eat;* but in *Siamese* follows it, as *kén káw,* literally *eat rice,* which corresponds to the *Malayu, makan-nasi.* The adjective generally follows the substantive, and the adverb the word which it modifies, whether adjective or verb. Whenever the name of an animal, and in general, when that of a species or class, is mentioned, the generic, or more general name of the genus to which it belongs, is repeated with it, as often happens in the other monosyllabic languages, as well as in *Malayu.* In the position of the adverbial particle, the *Malayu,* often differs from the *Siamese;* as *Mana pargi,* literally *where go,* but, in *Siamese, pai hnéi, go where.* The *Siamese* composition is also, like that of the *Barma,* a species of measured prose, regulated solely by the accent, and the parallelism of the members of the sentence; but, in the recitative, the *Siamese* approaches more nearly to the *Chinese* mode of recitation, and becomes a kind of chaunt, which different *Brahméns* have assured me is very similar to the mode of chaunting the *Samaveda.*

The *T'hay* coincides occasionally, even in simple terms; both with the *Barma* and *Malayu;* but these terms bear so small a proportion to the mass of the language, that they seem rather the effect of accident or mixture, than of original connection. The following are some of these coincidences which present themselves spontaneously.

	T'hay	*Barma*		*T'hay*	*Malayu*
river	klong,	kyóng or krong,	I,	ku,	aku, and ku,
elephant,	chang,	ch'heng,	this,	ni,	ini,
saw,	lŭei,	lŭa,	that,	nunn,	inún,
finger,	nyew,	nyo,	lock,	kachè,	kunchi,
to,	ka,	ga,	dagger,	krít,	krís,
self,	êng,	ēng,	open,	bùk,	búka,
			to,	ka,	ka,
			come,	ma,	mari.

The *T'hay* or *Siamese* alphabet, differs considerably in the power of its characters from the *Bali;* though it not only has a general resemblace to it, in point of form, but also in the arrangement of the character. The vowels, which are twenty in number, are not represented by separate characters, but by the character corresponding to the short *ăkar*, variously accented; excepting the vocalic *ru* and *lu*, which are only variations of the *r* and *l* consonants. The consonants are thirty-seven in number, and are not arranged by the series of five, like the *Deva-nagari* and *Bali*, but the first series *ka*, consists of seven letters; the second series, *cha*, of six; the third series, *ta* or *da*, of six; the fourth series, *ba* or *pa*, of eight; the fifth series, *ja*, of four; and the last series, *sa*, of six, including the vocalic *ăkar*, though two of them are not in common use. Each of these letters is varied by sixteen simple accentuations, and by thirty six complex ones. The letters *ka*, *nga*, *ta* or *da*, *na*, *ma*, *ba* or *pa*, are also final consonants. Hence it is easy to perceive the near approximation of the *Siamese* to the delicacy of the *Chinese* accentuation; while in other respects, the alphabet is considerably more perfect, than in the *Mandarin* or *Court language* of the *Chinese*, which has neither the same variety of consonants, nor admits so many, in the close of a syllable. The *Siamese* pronunciation, even of consonants, corresponds very imperfectly to

the *European* mode: *r* and *l* are generally pronounced *n*, in the close of a syllable; *h* is often prefixed to a consonant, but from the total suspension of voice, in pronouncing syllables which terminate in a consonant, no aspiration can be pronounced after them; *ma*, and *ba*, *tya*, and *chya*, are often difficult to be distinguished in pronunciation, as are *ya*, and *ja*, *kyé* and *chyé* with other combinations. From this circumstance, many combinations of letters are pronounced in a manner somewhat different from that in which they are written.

The first *European* who attempted the study of *Siamese* literature, was the learned GERVAISE, but his lucubrations have never been published. The learned and indefatigable HYDE procured from the *Siamese* ambassador at *London*, an imperfect copy of the *Siamese* alphabet, which has been published by GREG. SHARPE, in the "*Syntagma Dissertationum*," 1767. It is inferior to LA LOUBERE's alphabet in accuracy, though it contains a greater number of compound characters. LA LOUBERE's alphabet contains three forms of the *sa*, corresponding to the *Nágari*; but the *sha* and *sh'ha* being disused in common pronunciation, are commonly omitted both in the alphabet and in modern MSS.

The *Siamese* or *T'hay* language contains a great variety of compositions of every species. Their poems and songs are very numerous, as are their *Cheritrás*, or historical and mythological fables. Many of the *Siamese* princes have been celebrated for their poetical powers, and several of their historical and moral compositions, are still preserved. In all their compositions, they either affect a plain, simple narrative, or an unconnected and abrupt style

of short, pithy sentences, of much meaning. Their books of medicine are reckoned of considerable antiquity. Both in science and poetry, those who affect learning and elegance of composition, sprinkle their style copiously with *Bali*. The laws of *Siam* are celebrated all over the east, and LA LOUBERE has mentioned three works of superior reputation, *the Pra-Tam-non*, rhe *Pra-Tam-Ra*, and the *Pra-Raja-Kam-manot*. Of these, the first is a collection of the institutions of the ancient kings of *Siam;* the second is the constitutional code of the kingdom, and contains the names, functions, and prerogatives of all the officers; the third, which is about 150 years old, contains additional regulations. Of these, the first is the most celebrated and the most deserving the attention of *Europeans*.

The *Siamese* histories of the *T'hay* dynasty, detail with much minuteness, and great exaggeration, the events which have occurred in *Siam*, and the adjacent states and countries, during the last 1000 years. It also details the events of 400 years, previous to that period, with less precision, from the building of the city *Maha Nakhón*. The records, however, of the *T'hay J'hay* dynasty are supposed still to exist; and, perhaps, it may yet be possible to glean a few grains of pure historic gold from the sands which glitter in the long vallies of the *Mé-nam* and *Mékon*.

The *Cheritrás*, or romantic fictions of the *Siamese*, are very numerous, and the personages introduced, with the exception of RAMA and the characters of the *Ramayan*, have seldom much similarity to those of the *Brahméns*. The following are some of the most popular among the *T'háy*, several of which

contain the same stories and incidents as those which are current among the *Rukhéng*, *Barma*, and *Malayu* nations.

1. Rámá-kién,
2. Rádin,
3. Sum-mut-ta-kó-dóm,
4. Wét-jăsun-dón,
5. Worawóng,
6. Un-narút,
7. Mahó-sot,
8. Méláy,
9. Chátri,
10. Chalăwán,
11. P'húm-hóm,
12. Pra-thóm,
13. Su-t'hon,
14. Pok'ha-wád-di,
15. Téng-ón,
16. Lín-t'hóng,
17. Nok-k'hum,
18. P'ha-non-son-pájá,
19. Mak-kali-p'hon,
20. Súm-p'han-sit,
21. Sŭan-na-hong,
22. Prang-t'hong,
23. Nang-síp-song,
24. Ramá,
25. Chumpá-t'hong,
26. Lúk-sŭa-ko,
27. P'hím-swan,
28. Pája-p'hali,
29. T'hàw-krúng-són,
30. Khun-p'hen,
31. Trei-wóng,
32. Chin-narat,
33. P'howit'hàt,
34. Su-t'hin,
35. Hŏi-sang,
36. Sang-sin-chay,
37. Woranút,
38. Chitra-kán,
39. Nang-ut'hay,
40. Mahá-Chinók,
41. Mlék-t'hòng.

In the general characteristics of style and manner, these *Cheritras* resemble those of the *Rukhéng*, *Barma*, and *Malayu* tribes, and exhibit the peculiar manners of the *Indo-Chinese* nations, as well as the peculiar features of their mythology. The *Rama-kien* seems to be a *Siamese* version of the *Ramayan*, and relates the adventures of PRA'M or PRA RAM, and his brother PRA-LA'K or LAKSHMANA, and their wars with TOTSA-KAN or DUSHA-KANTHA, (which is one of the names of RAVANA,) who carried off NANG

SE'DA or SI'TA. This narrative corresponds as far as I have been able to learn, with the *Sanscrit* poem, and almost all its incidents have been converted into *Natakas* for representation by the *Siamese*, in the same manner as the *Barmas* have employed the incidents of the *Yama-méng* or *Barma-Ramayan*. *Rádín* is the *Siamese* translation of a *Javanese* story. *Sum-mut-ta-ko-dom* is the history of SOMONAKODOM, abridged from the *Bali*. The *Wet-jă-sun-dón* is the history of a *Rajah* who becomes an ascetic of the forest, being struck with a fit of devotion at the sight of a withered mango-tree, as he was walking in his garden. *Worawóng* is the history of an unfortunate *Rajah*, who fell in love with a lady, and was slain by an enchanted spear which guarded her, one night as he was escalading the window of his mistress. This is also a subject of dramatic representation. *Mahó-sót* contains the wars of MAHA-SOT with CHOR-NI, and is the same as the *Barma Maho-Sut'ha*. *Un-narat*, narrates the story of ANI'RUD'HA, the grand-son of KRISHNA. *Malăy* relates the benefits of MALAY, the being whose office is to relieve the torments of *Naraka*. *Chalăwán* contains the history of a destructive alligator, who falls in love with a princess, whom he carries off to his recess in the ocean, and the account of her rescue. *P'húm-hóm* is the history of another princess of whom an elephant was enamoured, and her rescue. *Prat'hom* is a mythological account of the origin of the universe, according to the principles of the *Budd'hist* sect. *Nok-khúm* is the mythological account of the celebrated HAMSA. *Pokha-wad-di* is the history of BHAGAVATI. *P'ha-nón-són-paja*, contains the instructions of the sagacious ape *P'ha-non*. The *Mak-kali-p'hon*, the adventures of the son of a chief, who possessed a wonderful cow, resembling the *Sanscrit Kamad'hemu*.

Súm-phan-sit, a book of moral instructions. *Prang-t'hong* relates the adventures of the persons who went to the land of the *Rakshasas* in search of the fruit *Prang t'hong*, for which a certain princess had longed when pregnant, the obtaining of the fruit on condition that the child of which the princess was pregnant should be presented to the *Rakshasa*, the carrying off of the child by the *Rakshasa*, and her return to her parents when grown up. The *Lúk-sua-kó* relates the friendship between the tyger and the bull, and their being afterwards metamorphosed into men by a certain *Rishí*. *Paja-p'hali* relates the adventures of VALI, the brother of SUGRIVA'. The *Hoi Sang* relates the adventures of the prince who was born in a chank shell, and remained in it till he arrived at maturity. The *Sang-sin-chay* is the account of a hero who was born with a chank and an arrow in his hand, with which, and mounted on a lion, he accomplished many adventures among the *Rakshasas* and *Girgásis*, *Yakshas* or *Yák*, as they are termed by the *Siamese*. The *Woranút* relates the adventures of the twin brothers WORANU'T and WORANE'T. *Nang-uthay* relates the adventures of a *Naga* princess, who was carried off by a *Rajah*. Some of these fictions exhibit a wild and singular style of fabling, with which we are little acquainted, but the greater part are obviously derived from the *Sanscrit*, through the *Balí*.

The *T'hay* exhibits considerable variety of measures, in composition, and frequently introduces several of them in the same work, in the same manner as is frequently done in *Brij'h*, *Punjabi*, and *Sik'h* compositions. The most frequent measure, however, among the *T'hay*, as among the *Ruk'héng* and *Barma*, seems to be that denominated *rắp*, which consists of

four long syllables, but admits occasionally of one or more intercalary short ones: the *Já-ni* which consists of five syllables, the *Chô-bang* of six, the *Pat'hamang* of seven, the *Jésuntá* of eight, are also frequently employed.

The following specimen of *T'hay*, is taken from the beginning of the *Mahá Chinók*, a work in which the greater part of these are introduced.

DESCRIPTION OF MAIT'HILA.

Jang mi múung núng
Jay kwàng trăhúng
Chu Mít t'hín lá
Tháw p'hu suwoi rât
Krop krong para
Song năm maha
Chinok p'homi
Som det p'homi
Krong se narât
Pin chá nan ma
Bo mi an arái
Ké rat prachá
T'haw krong para
Pin cháw p'hen din
K'haw mâk plá-t'hok
Bomi p'hai rók
Bibíĭn p'ho min
Pinsúk kă priăm pri
Múung Pra Narin
T'haw krong p'hen din
Súkă sém pră chá

Lok'ha-ma k'hài
Wanit t'hang lài
Thai rŭa pai ma
Bo mi satru
Bibíĭn prăchá
Prat'het naná
Jom ma thuk múŭng
Chin, Cham, Pram, Láw
Ming-môn, Tin-náw
Map mai nong núŭng
P'hărang phang-ka
Ma kha t'húk múŭng
Ckék môn nong núŭng
Ma múŭng ka kai
Kúla P'hrang-sét
Chin Cham Pram-T'het
Chong sakk Naláy
Jipún Chinhó
Aw sín ma k'hái
Ni nún lúă lay

"There was a certain country, powerful and of great extent, termed *Mithinla (Mait'hila)*. In this country a certain Rajah exercised the sovereign authority, named MAHA CHINOK, (JANAKA), overshadowing his people like the spreading banian tree. For a long series of years, he ruled this country, while none was able to injure it, or subject it to foreign authority. Rice was abundant, and of a cheap price: no disease prevailed, and no discontent against the sovereign, and the inhabitants enjoyed every pleasure, as in the region of *Pra-Narayen*. The sovereign of the country diffused joy over the face of the land, among

the natives, while merchants resorted thither in fleets of ships, constantly going and coming; and as there was no disturbance in the land, the inhabitants of every country frequented it; the *Chin, (Chinese)* the *Chám,* (the *Chinese Tartars)* the *Pram, (Brahméns)* the *Ming-Mon, (Móns* of *Pegu)* the *Tinnaw, (Barmas* of *Tenaserim)* all of them in innumerable multitudes:- also the *Franks* of *Europe* came thither to traffic; the *Khék, (Malays)* the *Kúla, (Chulias)* the *Phrangset, (French)* the *Pram-t'hét, (Kelings* or *Hindús* of *Kalinga)* the *Chong-sakk* and *Na-Lay, (Caffree* tribes, with stained skins and tattoed faces), the *Jipun, (Japanese)* and the *Chinho, (Tonkinese)* resorted thither with goods, to buy and sell, constantly in great multitudes."

The MAHA CHINOK of the *Siamese,* seems to be a popular account of Raja JANAKA, of *Mait'hila,* derived from the *Ramayan;* but it is evident, if the text can be considered as correct, that the work has been either interpolated or modernized, from the mention of the *Franks* and the *French.*

The following specimens of *Ruk'heng* and *Barma,* will indicate the similarity of style and measure which prevails in all the monosyllabic languages.

The specimen of the *Ruk'héng* is taken from the *Nga-chaing-braing:*

THE BIRTH OF GAUTAMA.

O-lé lé sangkhyé hna
Kaing b'ha ta saing
Two'k kyíng tsúng bowng
Pri bri syowng-hma
Párá tzú gó
Lo rui towng thi
Alúng sú mré'p
Syang Theik-d'hat ga
Né hmát prọ ra
Dowk thi da hnei'ch
Khyaing sa sukha
Tzaing lé sa dé

O tzeng lé bri sô
Dewa nát-tzei'ch
Ahnei'ch mroung krá
Tzaing bri chwa hma
Sei'ch-tza lé ba
Tará tzu si
Pri kha-ni-wé
Pri gri sa hla
Ka pila hnei'ch
Khrei'ch pha Thowk té
Médó boûng hi
Siri maha

Maya waing t'hé
Amri thaing d'hé
Tsŭwé lé ti
O thaing dé tsŭwé bri
Mré gri kreit krak
Aup t'hak akowng
Lát lat towng é
O thaing dé tsuwé t'ha
Tsé la waing hneik
Paik towng bri tho
Piang é nan hmon
Ahlueng tu pró
Angarang to hneik
Mi tso maya
Uyein sa go
Lé la tan di
O lé lát bri so

U yéng t'hé doang
Ko wat krang ruć
Pra jang ron mra
Ni ma hla ni,
Gotami hna
Mă pri rat léăt
Lé krang shéat ruwé
Prang thak hnan moang
Ahlueng tu pro
Angarang to hneik
Mi tso maya
Tháing kha ngewéh khak
Káing hléăk lék tsuwé
Amré rat né
Thowng lu chwa go
Phwa hléang lé i.

When one hundred thousand revolutions of the world were completed, each occupying four *Sankhyas*, then the devout worshipper obtained the object of earnest desire; and the sublime THIK D'HAT, (SIDD'HAR-T'HA) who is acquainted with the secrets of futurity, obtained supreme felicity, tranquillity devoid of care, and self absorption. After the pure DEVA NAT'HA had passed numerous ages in the possession of supreme felicity, meditating on the four laws of truth, when the period of the divine favour was nearly completed; in the excellent and populous region of *Kapila*, SUK-TÓ (SÙDD'HÓDANA) became his beloved father, and SRI MAHA MAYA, his venerable mother, became pregnant of a perfect conception. When this conception took place, the strong earth was agitated upwards and downwards, trembling and shaking. After ten months pregnancy, supporting her swelling womb with her hand, his mother MAYA was walking for recreation in a deep forest of *Angarang* trees, diffusing around an exquisite odour. Walking up and down in a pleasant garden, reciting the divine names on her rosary, and radiating in brilliant beauty, and accompanied by two younger sisters of the same complexion, unable any longer to support the burden of GOTAMA, (GAUTAMA) she leaned on the shoulders of her two younger sisters. Within a deep forest, in a grove of *Angarang* trees, which diffused around an exquisite odour; his mother MAYA, firmly grasping the branches with her hands, and standing erect on her feet, brought forth the deity GOTAMA.

THEIK-DHAT or THÍK-DHAT, is the *Barma* mode of pronouncing SID'HATA, as it is written, which is the *Balí* corruption of SIDD-HAR-T'HA. According to this analogy, BUDD'HA is pronounced BU'GDA, and SUDD'HO, the contraction of SÙDD'HODANA, SUK-TO, and sometimes SUG-DO.

The following specimen of *Barma* verse is taken from the *Chatu-Damasara*, as it is termed in *Pali*, which is denominated the *Ko-Khán* in *Barma*.

DESCRIPTION OF VARANASI.

Baranasi
Pyi gyi pyi hu
Kyó-níy lú-bó
We-niy kosi
Năgo k'haing-gaing
Hwún hwún di
Baranasi
Chòng ji pyo wa
T'ho pyi ma hneik
Dana-ma-mé
Chawng lé sadéng
Méng i tang khúĭn
Chúĭn gyĕ han lĭ
Khyiuk suin pyo byo
Hna myo mé'hlyéang
Hmya hné chéng ĕwé
Wan dúéng p'hyong tan
Makouk yŭĭn di
Ta khúĭn ha ga
Hnei'ch kwa maswé
Myew chwé khyé'ch so
Húléng kacha
Hloup shya maneyng

Ti di sóng ewé
Hné lóng makyan
Kyéng dan mwé nyek
Myék sék niba
Peng ga néng t'hek
Hní'ch chek mŭshíh
Khan khi sí nyín
P'hyeang bé pyo t'hu
Lú ahwon hné
Machan kyéăng hma
Leik hléo pyew sa
Ché khù hneik chán
Raja t'han dŭéng
Ta éng mákhyo
Kyé jn do gyowng
Sépo pyéng gyĕwin
Myet lé thuĭn só
Ku-san hlé deík
Pyiùk la so kha
Ko gwé ya hlien
Hman chua chéng chei'ch
Phyeit pé so la
Néng ngan sa do

Kyan k'heng myé chông
Chéng yé hu-sa
Yé tu khyan p'hyeng
Tóng lé khyéng hma
Pyowk keng ché khyéng
Bowng mi kéng ewé
Mwoi shéang lan-owng
Sín myan chông si
Swé tawng nan pŭéng
Cho yan hlueng ga
Meik myiang ko yo
Sívé khyi ko sa

Myo ba ché yú
Mito ketu
Hmat takhu phyiĕng
Esukari
Kyo hlueng nyi hliép
B'hông cheit ta hmu
Khát sin lu-do
Up'hyu u nék
Sowng teík tweik si
Hwan teik pyi byi
Hlyéan hlyéan di

Baranasi *(Benares)* was a beautiful and extensive region, inhabited by a race superior to every other, whether far or near, living fortunate and happy. *Baranasi* was, in every respect, an admirable country, possessing every thing desirable; for in that kingdom, prevailed the practice of charitable donation, and the performance of ascetic duties. So generous was the heart of the Rajah, that he gave, in charitable donations, the whole of his revenue. Devoid of every selfish desire, his mind was onefold, like the point of an arrow. Free from evil inclination, onefold and not double in his speech. Affectionate to all his relations, and beloved of them, remaining firm as a massy roof-beam, no one could prevent or shake his purpose; never deviating from veracity, undivided in heart, excellent in his whole conduct, and his heart devoid of angry passion. Under his sway existed no violence, restraining the desire of his own eyes. Such was his universal character.

Performing no wicked action, and rendering all his people happy, he neglected none of *the ten commandments* in the practice of general benevolence. Like a bank of sand, which rises up into an island far at sea, and when the passing ships are wrecked, affording a sure and safe refuge to the mariner. Thus it was that he aided his subjects, who were sinking overwhelmed in misfortune; and thus those who were shivering under the chilling cold, (of distress) were revived by approaching the genial flame of authority. Like the motion of a serpent, cautious in his conduct. His palace was splendid as a mountain of gold: in his presence no enemy durst present himself. Sivakara Kasa Mitra Ke'tu, with his mind fixed on one object, Yesukari far celebrated; such was his regal state, that the whole human race, whether white or black, in ten thousand regions, lived in joy and happiness under his sway.

It is difficult to determine, from the *Barma* text, the true name of this sovereign of *Benares;* but several names, in some degree similar, as

MITRE'YA and KETUMAT, occur in a *Pauranic* list of the Rajas of *Benares*, descended from DIVODASA, which was pointed out to me by Mr. COLEBROOKE, of whose notices I have frequently had occasion to avail myself.

XI. K'HÔHME'N.—The *K'hôhmén* language is used by a nation of that name, who reside on the *Mé-kón*, or river of *Kam-bú-chá't* or *Camboja*. It has never been cultivated by *Europeans*, and I have had no opportunity of examining it. The *Siamese*, from whom I received my information, assured me that it was entirely different from either the *T'hay* or the *Júan*, or language of *Cochin China*. The *K'hôhmén* are reckoned an ancient and learned people; and were formerly subdued by the *T'hay-j'hay*, or ancient *Siamese* race. The modern *T'hay*, or *Siamese*, still denominate the *Bali* character, *Nangsu Khôm*, or the *K'hôhmén* letter, from this nation. They are not, however, supposed to have existed as a polished nation so early as the *Láw*, but are believed to derive their origin from the warlike race of mountaineers named *Khô*, the *Gueos* of the early *Portugueze* historians, who are still represented as practising their ancient customs, of eating human flesh, and painting and tattooing their bodies. DE BARROS, however, seems to represent the language of the *K'hôhmén* as different from that of *Camboja*, though the *Siamese* do not distinguish them. "There are two kingdoms," says he, "adjacent to each other, and both of them maritime, which have each a peculiar language; the first is termed *Como*, and the second *Camboja*." (*Decad.* iii. lib. 2. c. 5.)

XII. LAW.—The *Láw* language is used by the inland nation of that name, who are generally termed,

after the *Portugueze* writers, *Lâo*, and in the plural, *Láos*, from their consisting of different races. Their language, De Barros observes, is peculiar, and the *Siamese* assert that it is different from the *T'hay*. It has never been cultivated by *Europeans*, very few of whom, besides Alexander De Rhodes, have ever visited the country. According to Kœmpfer, (History of *Japan*, p. 26,) the *Lâw* nation do not differ much from the *Siamese*, either in language or writing, except that they are unable to pronounce the letters *l* and *r*: and this opinion I am much inclined to adopt, though I have had no favourable opportunity of investigating the subject. If, however, I may be allowed to judge from the specimens of the *Lâw* language, which I have been able to procure from *Siamese* and *Barmas*, it appears to bear the same relation to the *T'hay* or *Siamese*, that the *Rúk'hêng* does to the *Barma*. With the *T'hay-j'hay* it accords more fully than with the *T'hay* proper; and, in adopting *Pâli* terms, it adheres more accurately to the *Pali* orthography than either of them. The following short list of words and phrases will convey some idea of the difference which subsists between the *T'hay* and the *Lâw*. As the *T'hay-j'hay* approaches the *Lâw* more nearly than the *T'hay*, when that dialect uses peculiar terms, I have preferred adducing them, for the sake of comparison. Where the *Lâw* and the *T'hay* agree in the radical, an apparent diversity is often produced by the conversion of the *l* and *r* into *h* or *d*.

	Lâw.	*T'hay.*
call,	hông,	ríukk,
talk,	fú,	phút,
warm,	hón,	ron,
very warm,	hón ala,	ron uk,

	Láw.	*T'hay.*
not know,	bo-hu,	mai ru,
Do you see?	cháw han ka,	nai hén rú,
many,	meng,	mák,
sea,	mésămút,	thălé,
wave,	fông,	klún,
river,	không,	klóng,
number,	ân,	rap,
gold,	khăm,	thông-kham, thông,
lead,	tông,	tăkúa,
do,	peng, jia,	t'ham, jia,
book,	pap,	sabút,
matchlock,	sénat,	pùn,
far off,	kăi,	klái,
handsome,	lau,	ngám,
weary,	ít,	nüëy,
hated,	chă,	kléit,
sing,	so,	khap,
grieve,	hái,	rong,
give,	hún,	hŭi,
approach,	hôt,	thŭng,
market,	kât,	tălát,
shut,	tút,	pít,
flesh,	chín,	nŭa,
blood,	hùit,	lùit,
fight,	hop,	rop,
craft,	khilái,	lúang,
stand,	hŭn,	jùn,
lamp,	kat'híp,	tă-kiang,
how is it done?	peng jang húdé,	t'ham jang arai
how many?	táw dai,	taw rái,
moon,	p'ha chan,	pra-chan,
woman,	mé jing,	pu-jing,
man,	pho-chay,	phu-chay,
country,	wiyung,	muang,
house,	hŭin,	rùin,
who,	phai,	krai, or kai,
what,	basandé,	arai,
go there,	pai-pún,	pai-nún,
come here,	mà-phé,	ma-ni,
fort,	tapp,	k'hái,
elder brother,	ay,	pi-pach-ay,

	Láw.	*T'hay.*
elder sister,	ùei,	pi-pu-jing,
mother,	ïmé,	mé,
I,	ku,	k'hà,
I (honorific	kha,	di-chan,
we,	hôw,	râu.

It is from this nation that both *Siamese* and *Barmas* allege that they derive their religion, laws, and institutions. It is in the country of *Láw* that all the celebrated founders of the religion of BUDD'HA are represented to have left their most remarkable vestiges. *Ceylon* boasts the sacred traces of the left foot of BUDD'HA on the top of the mountain *Amála-Sri-padi*, or *Adam's Peak*. *Siam* exhibits the traces of the right foot, on the top of the golden mountain *Swa-na-bapato*. Other traces of the sacred steps are sparingly scattered over *Pegù*, *Ava*, and *Arakan*; but it is among the *Láos*, that all the vestiges of the founders of this religion seem to be concentered, and whither devotees repair to worship at the traces of the sacred steps of *Pra-Ku-ku-sôn*, *Pra-Kón-nă-kôn*, *Pra-Put-t'ha-Kat-sop* and *Pra-Sa-mút-ta-ko-dom*. These *Siamese* names of the four BUDD'HAS seem to correspond to the *Barma* KAUKASAN, GONAGOM, KASYAPA, and GOTAMA, the *Singhala*, KAKUSA'NDA, KONAGAM, KASYAPA, and GAUTAMA. There can be no doubt, however, from the order of the names, but that they are the four last BUDD'HAS in the list given by HE'MACHANDRA ACHA'RYA in the *Abhid'hana Chintámeni*, under the following *Sanscrit* appellations, from which all these *Siamese*, *Barma*, and *Sing'hala* names, seem to be only *Bali* corruptions. The *Sanscrit* names are *Krúkruch'handa*, *Kan'chana*,

Kásyapa, and *Sákyasinha*. The language of *Láw* is represented as abounding in books, especially translations from the *Bali*; and if the antiquity of the nation can be depended on, they must be extremely interesting, from the situation of the country between *China* and the other *Indo-Chinese* nations. The *Láw* nation consists, like the *Siamese*, of two different races of people, denominated in *Siamese*, *Chông-mái* and *Lan-chang*, which are said by KŒMPFER, to be the names of their chief cities. The first of these are termed, by the *Barmas*, *Yún*, and the second, *Lain-sain*. DE BARROS adds a third tribe, which he denominates *Chan-cray*. In their general appearance the *Láw* resemble the *Món*.

XIII. ANAM.—The *Anam* language is that of *Cochin-China* and *Tonkin*. It is represented by the catholic missionaries to be likewise generally used in *Champa* and *Kau-bang*; but their assertions must be taken with some limitation when they add, *Láw*, *Cambója*, and *Siam*. The *Anam* language, as well as the nation, is often denominated the *Júan*, by the *Malays* and *Siamese*. It has always been more cultivated by the catholic missionaries, than any other of the *Indo-Chinese* languages, though these fathers may, with some degree of propriety, affect the title of "*multiplicis idiomatis propagatores*." So early as 1651, the *Propaganda Society* published at *Rome*, the "*Dictionarium Annamiticum Lusitanum et Latinum*," compiled by the jesuit ALEXANDER DE RHODES, after twelve years residence in *Cochin-China* and *Tonkin*, where he had studied under P. FRANCISCO DE PINA, the first who acquired skill and facility in that language. In composing his dictionary, he had also the advantage of employing the materials col-

lected by P. GASPAR DE AMARAL and P. ANTONIO BARBOSA, the first of whom had made some progress in preparing an *Anam* and *Portugueze* dictionary, and the second in compiling one in *Portugueze* and *Anam*. This dictionary is printed wholly in the *Latin* character, as the author considered the *Anam* character as too difficult to be useful. It is accompanied by a short grammatical sketch of the *Anam* language, entitled "*Linguæ Annamiticæ seu Tunchinénsis brevis Declaratio.*" Though I have never met with a learned *Cochin-Chinese*, I have seen several persons who could speak the vulgar language by rote, and have paid sufficient attention to it to perceive, that the dictionary of DE RHODES is a work of very great merit, though certainly susceptible both of additions and emendations. A new edition of it, would be a work of great utility, if our relations with *Cochin-China* should ever become more intimate or important: a circumstance by no means unlikely, from the formidable aspect which that kingdom has lately assumed among the more easterly nations. The principal defect of the work is, its representing, very imperfectly, the *Anam* pronunciation; a defect unfortunately very difficult to be remedied, as the *Anam* language contains many sounds which correspond very little to those of any *European* language, and respecting which a grammarian might be tempted to say, with the devout missionary DIDACUS COLLADO, when treating of the pronunciation of a *Japanese* letter, "*quando in aliquo vocabulo fuerit, (quod est valde frequens) orare debet discipulus, Deum, ut ei venas pronuntiationis aperiat.*"—(*Prolog. in arte Grammat. Japonic. ling.* p. 4.) DE RHODES also published at *Rome*, in 1652, a catechism, for the use of his *Anam* converts, in *Anam* and *Latin*.

From the vicinity of the *Chinese* to the *Anam* nation, and the intimate connection that has at different periods subsisted between their countries, the *Chinese* character, as well as literature, has been introduced into both *Tonkin* and *Cochin-China*. *Chinese* literature is greatly affected by all who pretend to distinction in learning, in these countries; and in the language of *Anam*, the *Chinese* characters are denominated *Chúw*. But besides this, another species of character is in general use, and commonly employed in matters of business and private affairs, which is constructed on a principle entirely different; and though its letters are numerous, they bear no proportion to the *Chinese* signs, and, according to DE RHODES, they are unintelligible to the *Chinese* and those who are unacquainted with the *Anam* language. These characters, in the *Anam* language, are termed *Nôm*. What relation they bear to the *Bali* characters I have not been able to determine accurately, though I suspect they will be found to be connected with that, or the *T'hay* alphabet. It is perfectly certain, however, that they have no connection with the proper *Chinese* character. I have been informed, by an intelligent *Chinese*, who had resided some time in both *Siam* and *Cochin-China*, that the proper *Anam* character greatly resembles that of the *Siamese*. The missionary BORRI says, that the *Cochin-Chinese*, in harangues, letters, memorials, petitions, "and such things as do not belong to printed books, for these, of necessity, must be in *Chinese* characters," generally employ about three thousand characters, which they find sufficient to express their meaning. If the compound characters, and contractions of the *Siamese*, be included in their alphabet, they would nearly amount to this number.

The *Chinese* character forms, in reality, an abstract, philosophical language, such as has long been the theme of speculation in *Europe*, though it is generally regarded as an absurd and impossible reverie. It is not indicative of sounds, but of real objects and ideas; and consequently it is read and understood by at least twenty different nations, who would scarcely understand a word of one another's oral language, and would all use different words to express the same meaning. The only *European* characters, analogous to the *Chinese* symbolical written language, are our numeral, algebraical, astronomical, and chemical signs, which are constructed on the same abstract principles. The *Chinese*, however, sometimes contrive to make these singular characters perform a double office, and express sounds, as well as ideas; as when they write down *English* names, which another person can pronounce with great accuracy. As far as I have been able to learn, however, this can only be accomplished by persons who use the same spoken language.

The *Anam* language is simple, original, and monosyllabic. What relations it may possibly bear to some of the spoken monosyllabic languages of *China*, to the *Man-chèw Tartar*, to the *Korean*, *Formosan*, *Likyu*, or rather *Riu-kiu* languages, I cannot possibly pretend to determine; but it certainly has very little affinity to the *Mandarin* or court language of *China*, which is properly termed *Khumm*; to the *Kóng-tóng*, or language of *Canton*; to the copious polysyllabic and inflected *Japanese*; or to any of the other *Indo-Chinese* languages.

It is certainly possible to find several *Anam* vocables which coincide both in sound and signification

with words in the *Khunn* or *Mandarin-Chinese*, and also in the *Kông-tông*, as well as others, which closely resemble *T'hay* or *Siamese* vocables; but nevertheless, all the essential parts of the *Anam* language are original and unconnected with any of the other monosyllabic languages, of which I have any knowledge. BARROW, an authority of some weight, in his "*Voyage to Cochin-China*," seems to consider the *Anam* as a derivative from the *Chinese*, "because it is constructed on the same principle." (p. 301.) "The spoken language," he observes, "has undergone a very considerable change, which is the less surprising, as the inhabitants of the northern and southern provinces of *China*, are unintelligible to each other; but though it has been altered, it does not appear to have received any improvement, neither from additions of their own, nor from the introduction of foreign words." (p. 322.) The precise meaning of this sentence, I confess I do not understand. The mass of the *Anam* language, whether nouns, verbs, or significant particles, is totally different from that spoken *Chinese* language with which he has compared it; and he himself admits, "That it is so much changed from the original, as to be nearly, if not wholly, unintelligible to a *Chinese*." The *Anam* nation employ several sounds and letters which are incapable of being pronounced by a *Chinese*, such as *b*, *d*, and *r*. The particles which form the cement, or construction of the language, are also different; and in addition to all these, the *Anam* language has a peculiar character of its own, which is not understood by the *Chinese*. It is difficult, after this, to conceive what similarity exists between the *Chinese* and *Anam*, unless that they are both monosyllabic languages, and that the signification of terms is regulated, in a great measure, by

their accentuation. But, though the same monosyllables occur, and though they are also accented frequently in a similar manner, yet even in this case, the signification of these monosyllables is, for the most part, totally different. In the syntax or construction of the two languages, there is also a very great difference, for in almost all the instances in which the *Barma* language differs in construction from the *Malayu*, *T'hay*, and *Anam*, the *Chinese* agrees with the *Barma*, and differs from the three others. Thus, when two substantives follow each other, in *Chinese* and *Barma*, the first is in the genitive or oblique case; whereas, in *Malayu*, *T'hay*, and *Anam*, the second is in the oblique case. Sometimes, too, the *Chinese* order of arrangement differs equally from them all. Thus, in *Chinese*, the adjective generally precedes the substantive, whereas it follows it in *Malayu*, *Barma*, *T'hay*, and *Anam*. It must be observed, however, that when the term *Chinese* is applied to the spoken languages of *China*, it is used in a very wide signification, unless some particular province be specified. The *Chinese* colloquial languages appear to be more numerous than the *Indo-Chinese* tongues, and equally unconnected with each other. Barrow himself declares, that scarcely two provinces in *China* have the same oral language. (*Travels in China*, p. 244.) While the nature of the *Chinese* character is still so imperfectly understood, it is not surprizing that the investigation of the spoken languages of *China* has been totally neglected. In the course of some enquiries that I made among the *Chinese* of *Penang*, I found that four or five languages were current among them, which were totally distinct from each other, and the names of several others were mentioned. I was informed that the principal *Chinese* languages were ten in number; but

I have found that considerable variety occurred in the enumeration of their names, and suspect that they are considerably more numerous, in reality. The following is one of the lists I received of these ten languages; but I have since been informed that it relates only to those which are spoken in the southern and western provinces.

1. Kông,	6. Lŭi,
2. Wáy,	7. Limm,
3. Nâm,	8. Khunn,
4. Chéw,	9. Síw,
5. Séw,	10. Kunng.

Of these, as has been stated, the first is represented as the language of *Canton*, and the eighth as the *Mandarin* language, or that which prevails in *Pekin*. To this list may be added the following:

11. Hyong-san,	14. Pún-ngi,
12. Sun-tukk,	15. Tông-khún,
13. Nam-hói,	16. Fo-khín.

The last of these is denominated *Chin-chew* by the *Chinese* of *Macao;* but the language spoken in *Macao* itself, is the *Hyong-San*. This enumeration, however, is extremely imperfect; nor have I been able to determine which of them are to be accounted original languages, and which dialects. Neither, without particular investigation, is it possible to ascertain, whether the *Anam* language may not be included in this enumeration, though I am rather inclined to the contrary opinion.

The *Anam* language has neither genders, numbers, nor cases; moods, tenses, nor conjugations; all these are supplied by the use of particles and the juxtaposition of words, as in the other monosyllabic languages. The same word has often the signification

of both a noun and a verb, and its particular use, in such a case, is to be determined by the context, and the collocation of words in the sentence. The principles of collocation in sentences are equally simple as in the other monosyllabic languages. The adjective generally follows the substantive, as in *Malayu*, *Barma*, and *T'hay*; but when two substantives come together, the last of them is in the oblique case, as in *Malayu* and *T'hay*; but contrary to the *Barma* order of arrangement. Thus, the phrase "*the master of the house*," is, in the *Anam* language *chúa nyà;* but *nyà chúa* signifies *the house of the master*. In *Malayu*, these two phrases are rendered by *túan ruma*, and *ruma túan;* and in *T'hay*, by *chàn rún*, *rún chàn;* but the *Barma* follows a different order, and renders them by *ín-sak'héng*, *sak'héng-ín*, where *ín* signifies *house*, and *sak'héng*, master. The substantive verb is often omitted, as being reckoned inherent in adjectives, especially when preceded by the demonstrative pronouns. Thus, *núi này kaw*, *this mountain high*, i. e. *is high*, the assertion being implied. The nominative precedes the verb, the preposition the word which it presides over, the adverb adheres to the word which it modifies, the relative is wanting altogether, copulative conjunctions are generally omitted, and the peculiar modes of expression in the *Anam* idiom are chiefly such as result from the manners and habits of the people. The moods and tenses of verbs are formed by significant particles as in the other monosyllabic languages. As the *Anam* nation are equally formal and ceremonious as the *Chinese*, in their phrases of urbanity, and equally accurate in marking, with a minute and tedious precision, the degrees of respect and honour due to every person, in the several relations of stranger, acquaintance, neighbour, relation, parent, magistrate, and all the several degrees of magistracy

and office; a great deal of the idiom of the language consists in the different modes of expressing the respective relations subsisting between the speaker and the person addressed: hence originates the number of personal pronouns, expressive of these relations, as well as numerous circumlocutory forms of expression; the genius of both the *Anam* and the *Chinese* language requiring, that as often as possible, appellative nouns, and names of office, dignity, relationship, or consanguinity, should be substituted instead of the simple personal pronouns. Thus, a husband addressing his wife, and using the pronoun *I*, instead of saying *taw*, *ta*, or *gua*, any of which has the signification of the simple pronoun *I*, ought to say *anh*, which signifies *elder brother*; and his wife, on the other hand, ought either to denominate herself *tôi*, *handmaid*, or *éng*, *younger sister*; a woman, in like manner, addressing herself kindly to another, who is either younger in years, or inferior in rank, ought always to denominate herself *elder sister*; a husband addressing his wife, in polite terms, ought always to term her *younger sister*; and, in general, speaking to a young woman, she should use the same expression, but an old woman he ought to term *bau* or *aunt*. A lover, addressing his mistress, terms her *younger sister*, while she, in return, terms him *elder brother*. A son, addressing his father, ought not even to term him *cha*, *father*; but *anh*, *father's elder brother*; *chu*, *father's younger brother*, or *cau*, *mother's brother*: in a similar manner, addressing his mother, he ought not to term her *mé*, *mother*; but either *cô*, *father's sister*, or *di*, *mother's sister*. It is easy to perceive that this minute accuracy of phraseology must have occasioned great trouble to the catholic missionaries in rendering portions of scripture into the *Anam* language; accordingly we find,

that they were extremely distressed about the propriety of the terms to be used, whenever GOD the FATHER, JESUS CHRIST, THE HOLY GHOST, or the VIRGIN MARY, were to be introduced as interlocutors, and dismally puzzled whether the VIRGIN ought to denominate herself, *tôi, handmaid*, or *mé, mother*, in addressing her son JESUS CHRIST; as a very trivial change of phraseology, in a language so delicate in its shades and distinctions, might have given origin to the most dangerous heresy.

The accents in the *Anam* tongue, are of such indispensable utility, that they have been very properly termed the soul of the language, while the primary monosyllables, varied by accent, have been made to represent its body. Conversation is a species of chaunt, or recitative, as in the *Chinese* dialects, and the other monosyllabic languages, which has, at first, a very ludicrous effect to an ear unaccustomed to it. The intonation or accent of the *Anam*, struck me as entirely similar to *Chinese*, though BORRI, the catholic missionary, to whom it was familiar, pronounces it softer and sweeter, more harmonious and copious in both its tones and accents. He adds, that every word expresses a variety of significations, according to the diversity of accents with which it is pronounced; so that, to converse in it correctly, a person ought to understand the grounds of music. That he ought to have an ear of the most delicate sensibility is indisputable; and as this can never prevail very equally in a numerous nation, this variety of accent gives rise to such diversity of dialect, that through the whole *Anam* region, every considerable village or district has, as it were, a different language, and are often obliged to have recourse to the written character, for communication with the districts in their vicinity.

Borri affirms, that the sacred books of the *Anam* nation, are termed *Sék King*, while those relative to civil subjects are denominated *Sék Chuw*. He adds, that the first treat of the creation of the world, the nature of mind, the different classes of intelligent beings, moral and metaphysical theology; but both these classes of books seem rather to refer to *Chinese* literature, than to that which is peculiarly *Anam*; for *Sék* signifies only *book*, *Chúw* is the name applied to the *Chinese* character, and *King* is the name of the books first put into the hands of the students of *Chinese* literature. Numerous *Tru-yèn* or *Cheritras*, however, are known to exist in the *Anam* language, and form the subject of their dramatic representations, in which the *Anam* nation are not inferior to the *Chinese*.

The ancient code of *Tonkin* laws, possessed great celebrity, and was highly venerated previous to the late conquest of that country by the *Cochin-Chinese*. It is represented, by the missionary Le Roy, as composed in the most elevated style of *Chinese*, and full of uncommon modes of expression. He also mentions, that it was printed with an *Anam* translation, composed by an ancient *Tonkin Mandarin*.

The *Anam* style is sometimes highly bold and figurative, and attains a degree of animation which is not very common among the *Indo-Chinese* nations of the continent. If the *French* version can be depended on, we need only refer, in proof of this, to the manifesto issued by the usurper Quang-tru'ng, in 1790, to quiet the minds of his subjects, alarmed at the reports of the prowess of the *French* auxiliaries, who aided the first efforts of the present monarch for the recovery of his throne. "Be not so credulous

as to listen to what they say of the *Europeans*. What superior ability should that race be possessed of? They have all the eyes of green serpents, and we ought only to regard them as floating corpses, cast on our shores by the seas of the north." *(Nouvelles des missions Orientales—p.* 144.*)*

The religion of the *Anam* nation is a modification of the *Budd'hist* system, nearly resembling that which prevails in *China*. Many local and peculiar superstitions, however, are blended with it; such as the worship of the dog and tyger, to the first of which human excrement, and to the second, human flesh is offered. Traces of this worship are found among the mountaineers on the borders of *India*, as well as in the proper *Indo-Chinese* countries. Thus the tyger is worshipped by the *Hajin* tribe, in the vicinity of the *Garrows* or *Garudas*.

The *Quan-tó*, *an ancient race*, as the name signifies, who inhabit *Kaubang* or the mountainous range which divides the *Anam* countries from *China*, regard themselves as the original inhabitants of *Tonkin* and *Cochin-China;* and consider the *Anam* as a *Chinese* colony. The *Quan-tó* have a peculiar language, and write with a style, on the leaves of a plant, termed in *Anam*, *jiwa*. The *Móï* and *Múòng* are also mountaineer tribes, who speak languages different from the *Anam*, but it is hitherto unknown whether they are original races, or only branches of the *Quan-tó*.

The following comparative vocabulary of the *Barma*, *T'hay*, and *Anam* languages, with the *Kong* dialect of the *Chinese*, will convey some idea of their mutual relations and differences. A few *Ruk'héng*

variations are also exhibited in the *Barma* column with the initial R. prefixed.

	Barma.	*T'hay.*	*Anam.*	*Kong-Chinese.*
God	prá yieng	pra-cháw	chúa	sunn, t'hien-chí
heaven	nip-ban	sâwan	t'hiến	t'hien
the earth	kam-ba	pi-p'hop	'dia	t'hien-ha
earth	myé R. mré	dín	'dat	ti
air	lé	lŏm	phú-jyó	húng
water	yé R. ré	nam	nák, nuwok, thuy	sói
fire	mí R. meing	fài	lúwa, hóa	ffŏŏ
sun	né	tawàn	nyít, mât-bloei	thai-yong, ngút
moon	lă	dùin	nguyit, mât-blang	ngúit
star	kyi R. kri	dàw	saw, tinh	tin-súng
sky	mó	sâ	bloei	mun-t'hien
sea	peng-lé	tă-lé	bé, biển, hăi	hŏë
river	k'hyong R. kh'rôn	klong	sû	hó
animal	tareich-chan	săt	thu	chhôk-lói
bird	hngék	nók	ching	chhéok-chay
fish	ngâ	plâ	ka	ngù
plant	apéng	tón	thúw	ch'háw
tree	apéng gyi	tón-mái	sang	sú, sút
leaf	ayéwék	băi	lá	hyep
hill	towng	p'hu-khaw	núi	san
plain	lé-bieng	t'hung	'dów, nù	phéng
stone	kyiowk	hín	'dá	syŭk, liĕ
gold	swé	t'hòng	wáng	kumm
silver	ngwé	ngùn	bak	ngúnn
brass	kyé	t'hòng-k'ham	t'haw	t'hóng
iron	san	lék	thiet, săt	thit
tin	khé	tă kóă	thiek	syăk
rice	ch'han	ká-săn	gàw, lúa, kŏem	mây
egg	ú	khài	tlueng	ch'hônn
day	nĕ	wán	ngày	yat
night	nya	k'hùn	'dêm	man
evening	nya-né	kham	ban-hom	yâ
morning	manék	cháw	sang-nyay	chew
month	la	dùin	thang	yuĕ, ngùit

	Barma.	*T'hay.*	*Anam.*	*Kong-Chinese.*
year	neit	pí	nien, nam, tuë, tuôí	nín
man	lu	khōn	ngúwói	yun
man	yowk-kya	pacháy	nam	nan-yun
woman	mim-ma	paning	núw	nyu-yun
father	p'haé	p'hó	cha	hù, fú
mother	maé	mé	mé	mu
husband	léng	p'húwă	chàw, phu	law k'hung
wife	maya	miya	vwó, t'he	láw-p'ho
son	sa	lok pachay	kon-blai	chí
daughter	sa-mi	lok paning	kon-gai	ngúë
elder } brother	ako	p'hi-pachay	anh	akko
younger } brother	nyi	nong pachay	éng	tí
elder } sister	umma	pi păjing	chi	amui
younger } sister	nyi-ma	nong-păning	éng	moéi
friend	sang-é-gyien	klú	nghía	púng-yôw
enemy	yan-su	satrú	nghéich, thu	tzow-yun
head	gowng	huă	thù 'dâu	thôw
face	hmiek-na	ná	mat, may màt	míën
eye	hmiek-chei'ch	tá	nyan, môk, mát kon-mát	ngān
nose	nakhaung	tămúk	múi	pi
ear	na	hu	tái	ngi
mouth	pajat	pâk	khau, mieng, lômieng	how
tooth	swa	fan	răng	ngá
tongue	sha	lín	luwoi	li
hand	lék	mù	tay	[illegible]
foot	khyé	tín	chên	khúck
belly	wún	p'hùng, thòng	deà, bâw	t'hu
back	kyó	lang	kât	pai hów
skin	ayé, sayé. R. aré, saré	nang	dĕa	phi
bone	ayo. R. aro	kădúk	kôt, shwang-kôt	ka
flesh	asa	núă	thit	héwŭk
blood	swè	lŭit	máu tiet	hit
milk	no-yé	nám-nóm	suwa	nín
eat	chá	kín	an	kiĕ
drink	sók	kín-nám	üông	yûm

	Barma.	*T'hay.*	*Anam.*	*Kong-Chinese.*
stand	mat-tat	jùn	'duĕng	khi
sit	t'haing	náng	ngôi	cho
sleep	ít	nón	ngủ	mi
strike	yeik	ti	'dam, 'danh	wat
kill	sat-pi'ch	k'ha	jiet, sat	sat
red	ani	déng	'do, tham	húng
green	acheing	k'héow	shanh	lok
yellow	awá	lùang	hoa ka, vang	wóng
white	ap'hyu	khaw	tlang, bak	pâk
black	anék	dam	tham, ak	hûkk
one	tít	núng	mot	yútt
two	hnít	sông	hui	ni
three	sông	sám	teng	sam
four	lé	si	bon	si
five	nga	ha	lang	úng
six	khyowk	hŏk	lak	lok
seven	khuhních	chét	bai	chhat
eight	shyít	pét	tang	pat
nine	kó	kàw	chin	kow
ten	tă ché	síp	tap	sap
hundred	tă rá	rôi	klang	pák
thousand	tă t'hawng	p'hán	kin	chin
I	kyewin nou'p	k'há	tôi, táu, ta, kwa	ngo, n
we	khewin-nou'p-do	ráu	chúng-toi, moi-toi	nga-té
thou	méng	mùng	bái, mâi, ngúwoi	ní
ye	maung, meng-do	sù	chúng-bái, moi-bái	ni-té
he	dón	măn	nó	k'hi, t'ha
they	den-do	măn aràì	chúng-nó	k'hi-té, t'ha-té
who	bédu, bélu	kài	ai	nāko
what	bahá	arái	nào	méyă
which	bédéng	anei	nào (placed after a word)	nāko
all	alúng	t'hang-phé thang-mót	kak	tŭtú
many	apowng	māk	deù, nyeù	tó

	Barma.	*T'hay.*	*Anam.*	*Kong-Chinese.*
few	cheich-cha-gulé	hit, nit	bé, dó, nyó	túk, shaw
any, some	tăkhyo	kài kài	ko-ai	yów
above	at'hék	bŏn	tlen	shyang
under	awk	tâi, láng	chuéng	ha
in	at'hé	nay	oei, tlâw	li, ín
without	pyíeng	nók	vo, chàng-ko, ngöàï	ngoii waí
to	ko, go	ké	cho	nì, ũ
from	ka, ga	té	boei	tzong
this	di-hu	ni	nây	téko
that	ho-hu	nun	ey, nò	koko
there	ho hma	tinơ	bên-nò	nuné
here	di hma	tíní	bên-nây	koné
before	shyé	na	tluwòk	sin
behind	nawk	t'hi láng	fâu	hôw

XIV. PALI.—The *Palí* language among the *Indo-Chinese* nations, occupies the same place which *Sanscrit* holds among the *Hindús*, or *Arabic* among the followers of ISLAM. Throughout the greater part of the maritime countries which lie between *India* and *China*, it is the language of religion, law, literature, and science, and has had an extensive influence in modifying the vernacular languages of these regions. The name of this language, though commonly pronounced *Balí*, is more generally written *Palí;* but both forms are occasionally used. As the origin of the word is still very obscure, it is difficult to determine which is the more correct orthography. If, however, we could venture to identify the term with the *Báhlika b'hasha*, which, in the SAHITYA DERPANA of *Viswanátha*, is enumerated as one of the languages proper to be used by certain characters, in dramatic works, the latter ought to be considered as the more correct. LA LOUBERE, on the authority of D'HERBELOT, has stated (Tom. I. p. 422) that the ancient *Persic* language was termed *Pahalevi, (Pahlaví)* and that the *Persians* do not

distinguish in writing between *Pahalí* and *Baĥalí*. This conjecture would be confirmed by the identity of the terms *Balí* and *Bádlika b'hasha*, were it to be established; for no donbt can be entertained that in *Sanscrit* geography, the epithet *Báhlika* is applied to a northern *Indo-Persic* region, probably corresponding to *Balkh Bámiyan*. Among the *Indo-Chinese* nations, the *Balí* is frequently denominated *Lanka-basa*, or the language of *Lanka*, and *Magata*, or, as it is often pronounced *Mungata*, a term which seems to correspond with the *Sanscrit Magad'hi*, which, in many of the *Vyakaranas*, is enumerated as one of the dialects proper to be used by certain characters introduced in *Natakas*, or *Hindú* dramas. According to KŒMPFER, the *Balí* in the *Khom* language, and by the inhabitants of *Pegu*, was termed "*Maccata-pasa*," or *Magad'hi b'hasha*, as we may safely venture to render it. P. PAULINUS however applies this term inaccurately to the square *Balí* character, instead of the language (Mus. Borg. p. 1).

This language, notwithstanding its extensive use among so many nations, and the degree of cultivation which it has received from the different tribes by whom it is employed, has hitherto attracted little attention among *Europeans*. The indefatigable KŒMPFER, in his *Amœnitates Exoticæ*," has very imperfectly exhibited the *Balí* alphabet. LA LOUBERE had previously published it more correctly, according to the form employed among the *Siamese;* his *Balí* alphabet is repeated in the *French* Encyclopædia, and CARPANIUS, in his "*Alphabetum Barmanum*," has exhibited the simple letters, according to the square form, employed by the *Bármas*. LA LOUBERE, in his "*Historical Relation of Siam*," has published "*The Life of* THEVETAT," said to be translated from the *Balí*, with a fragment termed "*An Explanation of the Patimouc*,

or Text of the Vinac." P. PAULINUS A S. BARTHOLOMAEO, in his "*Museum Borgium,*" has, in his usual petulant, inaccurate, and desultory manner, exhibited some confused notices concerning the *Bidagat*, the *Padi-mauka*, the *Kammuva*, and a "*Compendium of the Barma Laws,*" composed in the *Pali* language. Dr. F. BUCHANAN, in his "*Essay on the Religion and Literature of the Barmas,*" (Asiat. Research. vol. vi.) has published a translation of the "*Kammua,*" executed from the *Latin* version of VINCENTIO SANGERMANO, which differs considerably from the notices concerning that work published by P. PAULINUS, according to whom, in 1776, an *Italian* translation of it was made in *Pegu*, at the instance of cardinal BORGIA. Whether any of these versions have been made directly from the *Pali*, or only through the medium of a *Barma* or *Siamese* version, is, at least, very dubious; but the enumeration may suffice to show how far the attention of *Europeans* has been turned to this language. It would appear, that the learned LA CROZE, in his epistolary correspondence, has also treated concerning the relations and affinities of the *Pali*, but I have had no opportunity of consulting the collection of his letters. P. PAULINUS, in his coarse, acrimonious, and offensive way has also obtruded on the public, some conjectures concerning it, but the publication of his "VYACARANA, *seu locupletissima Samscrdamicae linguae Institutio,*" *Romae* 1804, has given a death-blow to his vaunted pretensions to profound oriental learning; and shown, as was previously suspected, that he was incapable of accurately distinguishing *Sanscrit* from the vernacular languages of *India.*"*

* The philological merits or demerits of P. PAULINUS form no part of the proper subject of this essay; he is only mentioned here for the purpose of disclaiming his critical authority, when placed, as it has frequently

The *Bali* alphabet seems, in its origin, to be a derivative from the *Deva-nagari*, though it has not only acquired considerable difference of form, but has also been modified to a certain degree, in the power of the letters, by the monosyllabic pronunciation of the *Indo-Chinese* nations. It has dropped, in

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been, by *European* writers, in competition with such authorities in *Hindú* literature, as Sir W. JONES, or Mr. COLEBROOKE. In his *Museum Borgianum* he has mistaken a specimen of *Málayu* for *Bengali*; but this is nothing to what occurs in his *Sanscrit* Grammar. The same blunder had been made before him, by the Editors of the polyglott "*Oratis Dominica*;" but the following are his own. A numerous class of *Sanscrit* nouns form the fifth case in AT; in *Tamul* and *Malayálam*, however, a case of similar import terminates in AL; and this case, which belongs to these vernacular languages, but never to *Sanscrit*, has P. PAULINUS uniformly substituted, in his *Sanscrit* Grammar, in the place of the regular *Sanscrit* flection in AT. This substitution of the letter *l* for *t* is not confined to those instances only, in which the analogous flections of a vernacular language may be supposed to have led to the error; it occurs in numerous instances, in which the *Sanscrit* and popular dialects coincide in using the letter *t*, and which must therefore be considered as the blunders of absolute ignorance. Thus, in the names of the tenses of the *Sanscrit* verb, he gives *lal* for *lat*, *lol* for *lót*, *lil* for *lid*, and *lul* for *lúd*. A blunder similar to that which occurs in the fifth case of nouns, runs through a variety of the flections of the *Sanscrit* verb. Thus, he gives *abhaval* for *ab'havat*, *bhavadal* for *b'havatat*, *bhavel* for *b'havut*, *bhuyal* for *b'huyat*, *abhul* for *ab'hut*, *abhaviszyal* for *ab'havishyat*: but the whole work swarms with similar errors. What should we think of a *Latin* grammarian who should falsify the ablative case in nouns, and misrepresent the third person singular in verbs? Yet this is nothing more than what has been done by the redoubted P. PAULINUS, whom the learned SYLVESTRE DE SACY terms "un des ecrivains les plus tranchans et les plus dedaigneux;" and he has not only erred in the particular instances which he has adduced in his Grammar, but he has also laid down rules to justify his errors, as, in his rules for the permutation of the letter *l* into *t*, *d*, *dh*, &c. All his other works, that have fallen into my hands, equally abound in error, arrogance and ignorance. Equally superficial, inaccurate, and virulent in his invective, a critic of his own stamp would be tempted to retort on him his own quotation from ENNIUS.

Simia quam similis turpissima bestia vobis.

common use, some letters entirely, and accented others in a manner similar to the *Uddhata*, *Anudhata*, and *Swarita* tones, in the system of accentuation used in chaunting *Mantrás*, and in reciting the *Vedas* themselves. Thus, it has dropped both the palatal and the celebral *sh* of the *Deva-nagari*, as well as the double consonant *ksh*, though the two first are still retained in the more correct alphabets. Instead of pronouncing the first series of letters *ka kha, ga gha, nga*, it recites them *ka khá kà găha, nga* pronouncing *ka* thrice; first, in its natural tone; secondly, softly accented in treble, as if with the tone *úd hata;* and thirdly, in a deep base tone, like the *anúdhata* of the *Samavedá* Brahméns; *găha* or *ga* is only recited once and that slightly accented, while *nga* suffers no alteration. A similar alteration occurs in the second series, *cha*, and the fifth series, *pa*. The vowels are generally presented in the same order as the *Deva-nagari*, but by a similar mode of accentuation, eighteen are sometimes employed. The peculiarities of this pronunciation are, however, more closely adhered to by the *T'hay* or *Siamese*, than by the *Barma* and *Rukhéng* nations, whose languages are neither so powerfully accented, nor so monosyllabic as the *T'hay*.

The form of the *Balí* character varies essentially among the different nations by whom it is used. The square *Balí* character, employed by the *Barmas*, differs much from that which is used among the *Siamese*. and approaches nearer the form of the *Barma* character. The *Siamese Balí* character is termed, by the *Siamese*, *Nangsu Khóm*, the *Khóm*, or *Khohmén* character, having, according to their own tradition, derived it from that nation. The square *Barma* character seems to coincide with the *Balí* character of

Lanka or *Ceylon;* though in that island, *Balí* compositions are frequently written in the proper *Sing'hala* character. Of the character used in *Láw*, *Champa*, and *Anam*, I have had no opportunity of judging. CARPANIUS, in his "*Alphabetum Barmanum*," p. 37, asserts, that LA LOUBERE, in his "*Historical Relation of Siam*," has mistaken the *Barma* and *Láw* characters for the *Balí;* and Sir W. JONES, in his 8th anniversary discourse, if I understand him, affirms the same thing, on the authority of a native of *Arakan*. The fact, however, is, that LA LOUBERE's alphabet, though imperfect, as the vowels are omitted, and the powers of several letters inaccurately expressed, is the real *Balí* alphabet of the *Siamese*, and that which I have found in use among the *Talapoins*, both of the *T'hay* and the *T'hay-j'hay* race, however it may differ from the *Balí*, in use among the *Barma* and *Rukhéng* nations. This character, however, when correctly written, is not round like the proper *Barma* character, but formed by a number of minute strokes, placed in an angular position, like the *Sing'hala Pushpákshara*, or flower-character. Indeed, on comparing the two characters, the square *Barma-Balí* character will be found to approach nearer the proper *Barma* character, than the *Balí* of *Siam*.

The *Balí* is an ancient dialect of *Sanscrit*, which sometimes approaches very near the original. When allowance is made for the regular interchange of certain letters, the elision of harsh consonants, and the contraction of similar syllables, all the vocables which occur in its ancient books, seem to be purely *Sanscrit*. In *Cheritás* and latter compositions, however, some words of the popular languages of the country sometimes insinuate themselves, in the same manner

as *Tamul*, *Telinga*, and *Canara* vocables occasionally occur, in the later *Sanscrit* compositions of the *Dekhin*. The *Balí*, while it retains almost the whole extent of *Sanscrit* flections, both in nouns and verbs, nevertheless employs this variety rather sparingly in composition, and affects the frequent introduction of the preterite participle, and the use of impersonal verbs. It also uses the cases of nouns in a more indeterminate manner than the *Sanscrit*, and often confounds the active, neuter, and passive tenses of verbs. Like other derivative dialects, it occasionally uses *Sanscrit* nouns and particles in an oblique sense; but notwithstanding all these circumstances, it approaches much nearer the pure *Sanscrit*, than any other dialect, and exhibits a close affinity to the *Prákrit*, and the *Zend*.

These three dialects, the *Prákrit*, the *Balí*, and the *Zend*, are probably the most ancient derivatives from the *Sanscrit*. The great mass of vocables in all the three, and even the forms of flection, both in verbs and nouns, are derived from the *Sanscrit*, according to regular laws of elision, contraction, and permutation of letters. Sometimes, in pursuing these analogies, they nearly coincide, sometimes they differ considerably, sometimes one, and sometimes another of them approaches nearest to the original *Sanscrit*. Their connection with this parent language was perceived, and pointed out by Sir W. JONES, and has also been been alluded to by P. PAULINUS, who derives his information, concerning the *Balí*, from CARPANIUS and MANTEGATIUS. The fate of these three languages is also, in some degree, similar. The *Prakrít* is the language which contains the greater part of the sacred books of the *Jainas*; the *Bali* is equally revered among the followers of BUDD'HA;

while the *Zend*, or sacred language of ancient *Iran*, has long enjoyed a similar rank among the *Parsis* or worshippers of fire, and been the depository of the sacred books of ZOROASTER. It is perhaps, however, more accurate to consider all the three, rather as different dialects of the same derivative language, than as different languages; and conformably to this idea, the *Balí* itself may be reckoned a dialect of *Prákrit*. The term *Prákrit*, both in books, and in common use among the Brahméns, is employed with some degree of latitude. Sometimes the term is confined to a particular dialect, employed by the *Jainas*, as the language of religion and science, and appropriated to females, and respectable characters of an inferior class, in dramas. Sometimes it includes all the dialects derived immediately from the *Sanscrit*, whether denominated *Prákrit*, *Mágad'hí*, *Súraséni*, *Pais'achí*, or *Apábhransa*; and sometimes it is even extended to the *Dêsa-b'háshas*, or popular tongues of *India*, as *Mahrásht* or *Mahratta*, *Canara*, *Telinga*, *Udia* and *Bengalí*. According to the extended use of the term *Prákrit*, it may certainly include both *Balí* and *Zend*; and if more extensive research should justify the idea derived from an imperfect investigation, I apprehend that the *Balí* may be identified with the *Mágad'hí*, and the *Zend* with the *Súraséni*, of *Sanscrit* authors.

These three dialects, the *Prâkrit*, *Balí*, and *Zend*, have been regularly cultivated and fixed by composition. The same laws of derivation are applicable to the formation of all the three; but yet there is often considerable diversity in the forms which particular words assume, as appears from the following comparative specimen.

	Sanscrit.	*Prákrit.*	*Bali.*	*Zend.*
man	purushah	puriso	burutsa	peôoroscho
woman	strí	trí	it'hi	strée
daughter	putrí	puí	butri	pothré
wife	b'harya	bhariá / bhaja	p'hiriya	peéré / perena
father	pitá	piá / piărŏ	pita	fedré
mother	matá	maá / maăro	matta	maté
wind	váyuh	baú	vayo	vato
fire	agnih	aggih	ak hi	atéré
horse	as'wah	ásó	atsa / acha	aspo / aspahé
hog	s'úkarah	suaró	sukaro	soubaré
dog	s'wá, s'wánum	sunău	sunak'ha	sunish / sepa
buffalo	mahishah	mahisó	mahingsa	mesha
hand	hastah	hattó	hasti	zesté
sun	suryah / ravih	suró / rai	suriya / ravé	houeré / reeoué
tiger	vyagrah	bag'hó	p'hayagho	azra / vuzra
tree	vrukshah	rukhó / vuch'hah	rukha	orot'hé
village	grâmam	gámam / gáü	khaman	gueoué
thé *lingum*	lingam	linkam	lankan	henghâmé
mountain	parvatah	pabbau / paüta	bapato	burezoeté
world	prit'hivi	pahaví	pattwé	peété
forest	aranyam	rannam	aranja	heramn
he enters	pravishatí	pavishaï	pawisi	freescheté

	Sanscrit.	*Prákrit.*	*Bali.*	*Zend.*
they will come	ágamishwanti	ágamihiï	akamisunti	aoontiâo
he makes	karoti	karoi	karoti	kereté
he is	asti	atti achi asai	hathi	asté
seven	saptah	sattó	sapta	haptê
heaven	swargah	saggó	saggó	spérézê

In this specimen, the *Prákrit* words are selected from the *Manôrama Vritti* of B'HAMAHA, and the *Prákritalanke'swarah* of VIDYA' VINÓD'HA; the *Bali* are taken at random from the *Kumárá-Bap, Chitamnán,* and *Hatamnán;* and the *Zend,* from the vocabularies of ANQUETIL DU PERRON, whose orthography, since I have not been able to procure the original *Zend,* has been preserved, however inaccurate, in preference to conjectural emendation; though I am convinced that an orthography, more conformable to the original, would render the connection of *Zend,* with its cognate dialects, more apparent.

Specimen of Bali from the Hatamnán.

Sagge' kámécharupé giri-s'ik'hara-gaté, chántálikk'hé vimáné dipé rat'hé-cha gamé taruvanagahané géhavat'hamhi k'hétté.

B'hummá cháyàntu deva: jala-t'hala-visamé yakha-gandabba-naga tit'hantám-antikéyám munivara-vachanam sádavo mé sunantu.

D'hammassa-vanakálo-ayum bhaddanta namótassa-B'hagavató Arhattó s'amma sambuddassa.

Yésantá-santachitta-tisarano-saraná éta-lókantarévá bhummá-bhummácha-dévá guna-gana-gahanâ d'háyatá sabbakálam été áyántu dévá varakanakamaé méru-rájé vasantó.

Santósahétam munivaravachanam sótam maggam sammaggam sabbésú chakka-válésú yakhá dévá-cha bramhanó.

Which may be thus restored into Sanscrit, without the radical change of a single word.

Swarge' kámécharúpé giris'ikharagaté chántarikshé vimáné dipé rashtré grámé taruvanagahané grihavatihi kshétré.

Bhúmau cháyántu dévá jalast'hala-vishamé yaksha-gandharva-nágas tis'hantám antiképám munivarachanam sád'havó mé s'rinantu.

Dhermas'ravanakálóyum b'hanyantam: namastasyaB'hagavató Arhatósamyak sambudd'hasma.

Yésantah s'ánta-chitta trisarana s'aranâ ihalókóttarévá b'humau ab'humaucha, dévá gunaganagrahaná d'hayantah servakálam: été áyántu dévá varakanakamaé mérurájé vasantah.

Sántóshahétum munivaravachanam s'rótum agré samagram servéshu chakravaléshu yakshá déváscha brámhanah.

The *Devas* frequent *Swurga, Kamarupa,* the mountain tops, and atmosphere, in their cars, and on earth, they visit the *Dwipas,* the fields, cities, recesses of forests, habitations, and sacred places. In inaccessible places, by land or water, the *Yakshas, Gand-hervas* and *Nagas* reside, in the vincity of waters. Listen to me, ye devotees, while I recite the words of the *Munivaras:* this is the time for hearing sacred things—*(the devotees reply)* Say on. *(the speaker proceeds)* Reverence to BHAGAVATA ARHATA, the all-comprehending. Those who hear, shall become pure of mind, and TRISARA' shall protect them both in this and other worlds: the *Devas,* earthly and unearthly, possessed of various qualities, constantly present themselves to their thoughts, and the *Devas* who reside on *Meru,* the chief of mountains, of pure gold, frequent them. In the full and perfect hearing of the words of the *Munivaras,* the *Yakshas, Devas,* and *Bramhanas* delight above all else.

This specimen may serve, in some degree, to ilustrate the relation which the *Balí* bears to its parent *Sanscrit.* The passage is chosen at random, but considerable portions of *Balí* have been subjected to the same process with a similar result; and I am satisfied that it applies equally to *Prákrit* and *Zend,* though words of an origin foreign to *Sanscrit,* may occasionally be expected to occur in all the three dialects.

After having thus briefly stated the origin of both the *Balí* language and written character, I should, in conformity to the plan which has been followed in this rapid sketch, proceed to the illustration of its characteristic structure and grammatical peculiarities, with the relations which it bears to *Prákrit* and *Zend;* but these, with a view of *Balí* literature, and its influence, as a learned language, on the vernacular *Indo-Chinese* tongues, I reserve for the subject of another essay. The politeness and literary zeal of Mr. COLEBROOKE, have furnished me with ample facilities of investigating the *Prákrit,* in all its variety

of dialects; but the paucity of my original materials, in *Balí*, and the total want of Mss. in *Zend*, have hitherto prevented me from giving the subject so full an investigation as its importance requires; but if the necessary materials can be procured, I hope to be soon able to submit to the Asiatic Society the result of my enquiries. Of the *Balí* language, different *Kóshas* and *Vyákaranas* are known to exist; and several of them are to be procured in *Ceylon*, as the *Balí Subdamala*, *Balavatara*, *Nigandu* and *Nigandu Sana*. Of the *Zend*, various alphabets and vocabularies, as well as original compositions, are extant; but no set of grammatical forms, with which we are acquainted. The learned TYCHSEN, in his dissertation "*De Cuneatis Inscriptionibus Persepolitanis*," 1798, recommends, earnestly, to the Asiatic Society, to form grammars and lexicons of the *Zend* and *Pahlavi;* and this must undoubtedly be performed if ever the subject be accurately investigated; for as yet we are imperfectly acquainted even with the true arrangement of the *Zend* alphabet, though it is probably the origin of the ancient *Kufic* character, if not the actual *Himyaric* character itself. I have at present little doubt that the character of the ancient *Zend*, or as it is termed, according to ANQUETIL DU PERRON'S orthography, *Azieanté*, is derived from the *Déva-nágari;* for that author himself admits that the vowels coincide with the *Guzeratti*, and hints that in some alphabets the consonants also have a similar arrangement. Numerous circumstances likewise lead us to conjecture, that if ever the *Persepolitan* inscriptions in the *Arrow* character are decyphered, it will be on the principles of this alphabet. NIEBHUR has stated, from actual observation, that the characters of these inscriptions are certainly written from left to right, like the *Deva-nagari*, and the alphabets derived from it. If this authority can be depended on, it completely sets aside every attempt to explain

them by any alphabet written from the right hand to the left. A subject, however, like the *Arrow character*, concerning which there are almost as many opinions, as authors who have engaged in the discussion, can never be illustrated by mere conjectures, however ingenious or plausible.*

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* In revising the sheets of this essay, I perceive that several omissions have occurred from the number and nature of the various materials employed, and the difficulty of classing them in the proper order of arrangement. The following additions are therefore subjoined.

To the notices concerning *Malay* compositions, the following may be added.

1. *Asál agáma Islam*, or the principles of the *Islam* faith.
2. *Idlal agáma Islam*, explanation of the *Ismalic* worship.
3. *Idlalu'l fikeh*, explanation of the law of *Islam*.
4. Makóta segála Raja.
5. Pasiru'l Korán.
6. Hafid Imam, ul Mumenín.
7. Hikaiat Miáraj Nabi Mahummed.
8. Hikaiat Nabi Mahummed.
9. Hikaiat Nabi Músa.
10. Hikaiat Nabi Yúsuf.
11. Hikaiat deripada kajadiaün Mahummed.
12. Húkam Islam.
13. Húkam Khaj.
14. Hukam Kanún.
15. Elmu Fikeh.
16. Elmu Falak.
17. Kitabu'l Faraid.
18. Kitab ul Allah.
19. Sijihu'l Huseinu'l Káshefi.
20. Samar adainu'l Islam.
21. Mirat al Múminin.
22. Mirifat ul Islam, or Punganíl agáma Islam.
23. Permáta marifat Allah.
24. Reazu'l lehafi.
25. Ruein parungan.
26. Núr Mahummed.
27. Cheritra deripada Suliman.
28. Cheritra derinada al Omar.
29. Cheritra Raja Dewa Ahmud.
30. Cheritra Kobat Leila Indara.
31. Humsah penchurí.
32. Hikaiat segála Súsuhúnan.
33. Hikaiat Misa Túmon panji Wila Kasúma.
34. Hikaiat Misa Gomitar.
35. Hikaiat Jarau Kolina.
36. Hikaiat Chahaju Langarei.
37. Silsilitu'l Salátin, or, Penúrunan segála Raja.
38. Hikaiat Ambon.
39. Hikaiat Achi.
40. Hikaiat Bayan.
41. Hikaiat Baktiyan.
42. Hikaiat Tana Hitum.
43. Hikaiat Jowhar Manikam.
44. Hikaiat Datu perjanga.
45. Hikaiat Dewa Raja.
46. Hikaiat Raja Bosman dan Lokman.
47. Hikaiat Raja Tambik baja.
48. Hikaiat Raja Suliman.
49. Hikaiat Rajah ul Ajam o Azbah.
50. Hikaiat Raja Kirripun.
51. Hikaiat Raja Kambáyu.
52. Hikaiat Raja Nila Datu Kawaja.
53. Hikaiat Runga Rati.
54. Hikaiat Isma Jatim.
55. Hikaiat Abdullah ibn ul Omar.

In addition to the list of *Barma* compositions, the following names of twelve popular works may be mentioned:

1. Wi bado,
2. Wi béng,
3. Padi muk,
4. Néwa,
5. Nyáwa,
6. Séng-gyó,
7. Wi-miy,
8. Siho namakara,
9. Namosara Lénga,
10. Yadana sui-gyaing,
11. Tong-úchó,
12. Yédana Rasi.

The following additional notices and corrections of names refer to the list of *Barma* compositions given under the article BARMA, according to the respective numbers.

1. *Jainda Mana Bikhu*, an account of the female ascetic JAINDA MANA.
2. *Nunda Jaina*, the history of a *Deva*, also named ANUNDA.
6. *Témi*, the religious institutes of TEMI.
7. *Némi*, Another of the ten great religious books of the *Budd'hists*, which are recited in the following order: 1. *Témi*; 2. *Némi*; 3. *Janaka*; 4. *Sawan Nasyan*; 5. *B'huridat*; 6. *Maho sot'ha*; 7. *Samata*; 8. *Wit'hora*; 9. *Chanda Gúngma*; 10. *Wesusdara*. Besides these, the two following works are of great authority.

   The *Paréik-gyé*, which is the *Barma Hatamnán*.

   Pat'ham, which is the book of their mythology, revealed by MYA CHEWA-PARA.
8. *Dherma pat'há*, a book on Justice.
9. *Namagara*, a ritual of prayers.
10. *Logasara* and *Loganithi*, Moral treatises.
14. *Paramikhan*, account of *Samata* and *T'hik D'hat*.
16. *Bongkhan*, the adventures of NEMI.
17. *Kado-khan*, a religious work on the expiation of crimes.
26. *To-twek-khan*, the same work as the *Rukhéng Nga-chang bráng*.
28. *Anusasana*, a small book for children, like the *Tamul Atisúdi* and other compositions of *Avyár*.
30. *Attagat-Lénga*, the *Bídagat*.
36. *Hmat-chew-Bong*, *A System of morality*.

IV.

An Account *of the* Trigonometrical Operations *in crossing the* Peninsula *of* India, *and connecting* Fort St. George *with* Mangalore.

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Communicated by The Honorable William Petrie, Esq. *Governor of* Fort St. George.

GENERAL ACCOUNT.

IN the year 1801 I had the honor of communicating to the Asiatic Society my intention of extending a geographical survey across the peninsula of *India*, with a view to ascertain certain positions on the *Coromandel* and *Malabar* coasts, and to fix the latitudes and longitudes of all the principal places, in the interior country, within the extent of the operations for connecting the two seas. My labours commenced in the *Carnatic*, in 1803, in measuring a small arc on the meridian and on its perpendicular, an account of which has been published in the 8th Vol. of the Asiatic Researches. The triangles, from which those arcs were deduced, constitute a part of the general survey under my superintendance, now extended from sea to sea, taking in upwards of two degrees of latitude. A series of principal triangles has also been carried down in a meridional direction, from which has been deduced an arc of three degrees and upwards in amplitude, giving the length of the degree, on the meridian, in lat. 11° 59′ 55″, equal 60494 fathoms, and that from a great number of observations of different fixed stars. As I expect that the detailed par-

ticulars of that arc will appear before the public in another place, it will be sufficient barely to mention it here, as being the scale from which the latitudes of places are computed.*

A full account of this survey being intended for a separate publication at some future period, when more materials will be collected, I have chosen for the subject of the present paper, that part of it which I think will be the most interesting; viz. the triangular operations in connecting the two seas, and the method by which the difference of longitude has been determined in my progress from east to west: and that it may be better adapted to the general reader, who, perhaps, may have neither time nor inclination to enter into minute detail, I shall previously state, in a concise form, the manner in which these extensive operations have been carried over the great mountains, forming the eastern and western

* It may not be amiss to mention here, that some little irregularity had occurred at some of the stations of observation, occasioned, no doubt by the plumb-line's being drawn out of its vertical position; but it is impossible to say at which of the stations this has happened, as at the three where the zenith distances were deemed the most unexceptionable, there is nothing, to appearance, which can be considered competent to produce the effect in question. One of these three is in the ceded districts, in latitude 14° and upwards. Another one is on the table land, near *Bangalore*, in lat. 18°, and the most southerly one is in the *Coimbetoor* country, in lat. 11°. The arc, comprised between the stations in 11° and 13°, gives the measure of the degree 60530 fathoms; and that, comprehended between 11° and 14°, gives only 60461 fathoms; so that there evidently has existed some cause, for deflecting the plumb-line, at one or both of these northern stations. I have, for the present, taken the mean result of the two cases, reducing them to the same latitude, 11° 59′ 55″, which is 60494 fathoms. This measure, used with all the recent measurements made in *England*, *France*, and at the polar circle, will give the mean ellipticity of the earth $\frac{1}{321}$ nearly, and therefore the polar, to the equatorial diameter, will be in the ratio of 1 to 1.003125 nearly.

ghauts, and through the whole extent from *Fort St. George* to *Mangalore*, being a distance of three hundred and sixty two miles and upwards, on the parallel of the mean latitude between these two places.

In the triangles of 1803, a great distance was determined between *Carangooly* and *Carnatighur*, at which stations pole-star observations were made for determining the difference of longitude of those two places, and it was then thought probable that others might be found in succession, nearly west from *Carnatighur*, so as to afford great distances for connecting the meridian lines; but it was afterwards discovered that *Kylasghur* was preferable, and it was accordingly chosen for continuing those distances to the westward, *that* between *Carangooly* and *Carnatighur*, as already determined in 1803, remaining the first.

Kylasghur was laid down from the side *Carnatighur* and *Hanandamulla*, being given in the 39th triangle, and the side *Hanandamulla* and *Poonauk* of the 21st triangle, was the base for finding the distance of *Poonauk* from *Pilloor* hill. From this last, and from the side *Kylasghur* and *Hanandamulla*, each as a base, the side *Kylasghur* and *Pilloor* hill has been obtained as a mean of the two results. From this, as a base, the series has been carried on to *Yerracondah* and *Kylasghur*, depending on the measured line near *St. Thomas's Mount;* the particulars of which have already been given in the 8th Vol. of the Researches.

The base near *Bangalore* (an account of which is given in Art. 2) is then had recourse to, for bringing out the same distance, and it will appear, in the arrangement of the triangles depending on that base,

that all the errors are intended to be combined in the distance between *Rymandroog* and *Yerracondah*. From that the triangles are carried eastward, and the side *Yerracondah* and *Kylasghur* again brought out, differing from the former two feet, which will show, by proportioning the said side to the length of the new base, that had the triangles been carried on, and that base computed therefrom, it would have differed from the measurement $3\frac{7}{10}$ inches. The distance, therefore, between *Kylasghur* and *Yerracondah*, is the second great distance for connecting the meridian lines.

The third of these distances is that between *Yerracondah* and *Savendroog*, which is had from the base *Savendroog* and *Nundydroog* to the northward, and *Savendroog Deorabetta* to the southward, differing 11 feet, the mean of which is made use of.

The same two sides are used as bases to proceed to the westward: the stations to the northward are *Devaroydroog*, *Bomanelly*, and *Mullapunnabetta;* those to the southward are *Bundhullydroog*, *Mysoor* hill, and *Mullapunnabetta;* and, from the mean of these, (the difference being 5 feet) the fourth great distance is had between *Savendroog* and *Mullapunnabetta*.

Finding the three stations, comprehending the two last distances, fall very favourably with respect to each other, the positions of their meridians have been fixed, with more than ordinary care, in moving to the westward. But, as this will be more particularly treated of in giving an account of the perpendicular arcs deduced therefrom, I shall proceed to state the manner in which the triangles have been continued across the great mountains that form the western ghauts.

After the observations were completed at *Mullapunnabetta* in Nov. 1804, the western monsoon being then over, and the favourable season on the *Malabar* coast approaching, it became necessary that some previous knowledge of the country should be had, as I found that my intended direction would take me across the *Bullum* district, which is a part of the ghauts forming a curve convex to the eastward, and, in consequence, is at too great a distance to discover any object on the sea coast; for I had all along entertained a hope of finding two or three stations, on the tops of these high mountains, from which to intersect the flag staves at *Cannanore*, *Tellicherry*, and *Mangalore*. For the purpose of selecting stations I had detached Lieut. KATER, one of my assistants, who after encountering many difficulties, succeeded in the choice of two, one on the top of *Balroyndroog*, in the *Bednore* province, and the other on *Koondhully*, a mountain in the *Koorg*. The distance between them has been derived from the base, *Mullapunnabetta* and *Daesauneegooda;* as is also the fifth great distance connecting the meridians of *Mullapunnabetta* and *Balroyndroog*. These stations, however, being too remote from the sea, I decided on descending the ghauts, and on the distance between them as a base, a series of triangles was carried through to *Mangalore*, and thence down the coast to *Mount Delli* and *Cannanore*.

It will no doubt be noticed, that the great extent from *Bangalore* to the sea coast required that another base should have been measured to verify the truth of the triangular operations, and it was my intention that it should have been done, but circumstances and various avocations prevented it, till the season became so far advanced that every other object would have been lost. I had to fix the meridian at *Balroyndroog*,

and to observe zenith distances at *Paughur*, the intended northern extremity of my meridian arc; and, by the time I arrived at the latter place, it was the end of April, and very shortly after that the monsoon set in. I had, however, laid the foundation for a southern series of triangles, to be carried through the *Koorg* to *Mount Delli*, which was rendered practicable by the assistance afforded me by the *Koorg* Rajah, to whose liberal aid I am indebted for the successful means I had in carrying the triangles over these stupendous mountains. Several beacons had been erected on commanding situations pointed out by me, previous to my descending the ghauts, some of which were distinctly seen from every part of the coast, and one of them *(Taddiandamole)* being visited as a station, the season following, I was enabled thereby to intersect the flag staves at *Cannanore* and *Tellicherry*, and also a signal flag on my former station on *Mount Delli*. This branch of triangles was carried on in the beginning of 1806, and commenced from *Mullapunnabetta* and *Mysoor* hill, and thence to *Bettatipoor*, *Soobramanee* hill, *Taddiandamole*, *Kunduddakamully*, *Mount Delli*, and *Baekul*. From the distance between *Taddiandamole* and *Mount Delli*, *Cannanore*, and *Tellicherry*, have been laid down; and upon the distance between *Baekul* and *Kunduddakamully*, a branch of triangles has been carried up for finding the distance from *Bullamully* to *Kunnoor* hill, which was also determined by the northern series, and there is a difference of $3\frac{7}{10}$ feet. I have been more particular in giving an account of this southern series, because the object was to do away any doubt that might exist, as to the accuracy of the northern one, from the want of a base on the *Malabar* coast; and I think, so far as regards nautical purposes, no error, of any importance, can exist. It will, however, be necessary that a base

line be measured near *Mangolore*, from which all these distances, near the sea, should be derived anew, when a more minute survey of the coast is made.

As the situation of the places on the *Malabar* coast, and their relative positions, with respect to the observatory at *Madras*, and other places on the coast of *Coromandel*, constitute a most important part of this survey, I have left nothing undone, in that respect, to give full and entire satisfaction. But the great accuracy required, in these low latitudes, in ascertaining the length of a degree of longitude, has called forth more than ordinary attention; and I have reason to hope, from the many favourable and concurring circumstances, that my endeavours have been rewarded with success. The three stations best situated for determining the length of an arc, perpendicular to the meridian, are *Perracondah*, *Savendroog*, and *Mullapunnabetta*; their respective distances from each other being nearly 67 *miles*; and lying in a direction very nearly east and west, the spheriodical corrections for the angles are trifling. All the other great stations have therefore been used for connecting the meridian lines, their latitudes and longitudes being computed spherically by using the oblique arcs, as obtained on the elliptical hypothesis, the perpendicular degrees having been found equal to 60748 fathoms, and the meridional degree 60498 fathoms, in latitude 12° 55′ 10″, which is the latitude of *Savendroog*, as had by referring to the latitude of *Dodagoontah*, the great station of observation, (Art. 8) for fixing the point of departure.

The scale of 60748 fathoms, for the length of the degree perpendicular to the meridian, in lat. 12° 55′ 10″, is considerably different from what was formerly obtained from the observations made at *Carangooly*

and *Carnatighur*, and reduced to the same latitude; but this is not to be wondered at, considering under what great disadvantages they were made, and the extreme accuracy required in making them: and it may be further remarked, that *Carnatighur* is by no means an eligible station, on account of the great mass of mountains on the west, and the low sandy plain to the east, which comes to the foot of the mountain. Such an inequality of matter must doubtless produce a great lateral attraction, and sensibly affect the instrument. The station on *Balroyndroog*, on the top of the western ghauts, has been laid aside on a similar account.

The relative positions of *Savendroog*, *Mullapunnabetta*, and *Yerracondah*, having been fixed with great accuracy, the connection with the observatory at *Madras* is effected, by working back to *Carangooly*, by means of the oblique arcs, (Art. 15) and then using the northing and easting, and computing sphærically, by converting the easting into an arc at right angles to the meridian of *Carangooly*, and passing through the observatory; and also using the co-latitude of the point of intersection of the said arc and meridian. From this computation, the latitude of the stone pedestal in the centre of the observatory is had equal 13° 48′ 7″. The position of the flag-staff at *Mangalore*, is deduced from the meridian of *Balroyndroog*, by using the southing and westing, in a similar manner as at *Carangooly*, with respect to the observatory. It is thence found to be in lat. 12° 51′ 38″ N. and 34′ 50″ W. from the meridian of *Balroyndroog*. By summing up the respective differences of longitude, we shall have 5° 25′ 23″ for the longitude of *Mangalore* west from the observatory; to which add 2′ 22″, the easting of the church steeple in

Fort St. George, we get 5° 27′ 45″ for the difference of longitude between the steeple in *Fort St. George* and the flag-staff at *Mangalore*.

The meridians of *Carangooly* and *Balroyndroog* are also used for fixing the latitudes and longitudes of other places on the two coasts, as will be seen in the detailed account (Art. 15); so that by having the positions of a few places accurately laid, the general form of the peninsula may be determined, and a foundation laid for carrying on more minute surveys, both along the coasts, and in the interior. I have given here the mode of computing the positions of the most remarkable places on the coasts, and of the great stations connecting the meridian lines. But from these different meridians, the latitudes and longitudes of other places are fixed by using the eastings and westings, and the northing and southing from the great stations, and computing spherically; so that the whole together amount to near six hundred. I have subjoined to this paper an alphabetical list, which includes the most remarkable places within the extent of the survey; and I have also added a table, giving the perpendicular height of all the great stations above the level of the sea, and the ultimate comparisons of the height of a station on the beach near *Mangalore*, as had by computing from *this* coast, and by measuring from the low water mark on the *other*, where there appears an error only of $8\frac{1}{2}$ feet. This table also contains the terrestrial refractions.

It will be unnecessary to say more here, there being sufficient, by referring to the plan of the triangles, to convey a general idea, and the adjoining detail will furnish all the materials for a more critical ex-

GENERAL PLAN OF THE TRIANGLES.

amination of the subject. The work is now grown to a magnitude far exceeding what was first proposed, and will, I hope, be adopted, as a foundation for a more finished superstructure, in times to come. The task has been an interesting one, and by no means arduous. Freed from restriction of every kind, and permitted to act under the most liberal conditions, I have been enabled to obviate every difficulty; which otherwise must have embarrassed my exertions, and defeated the ultimate objects of my labours.

SECTION. I.

Series of triangles taken up at *Hanandamulla* and *Pilloor Hill*, and carried to the base near *Bangalore*.

I. ANGLES.

At Hanandamulla.

Between	*And*				
Kylasghur	Pilloor Hill	98°	13′	34″.6	
				31 .6	33″.6
				34 .5	

At Pilloor Hill.

Kylasghur	Hanandamulla	42	59	9.25	
				5.8	8
				8.95	
	Patticondah	50	13	25.7	
				26.95	26.32
	Bodeemulla	50	36	20.75	
				21.4	21.07

At Kylasghur.

Referring flag, ...	Patticondah, ...	53	2	34	
				33.62	33.81
	Yerracondah	89	17	57.16	
				56.	57.61
				59.66	

At Kylasghur, continued.

Between	*And*				
Referring flag, ...	Bodeemulla	2°	15′	44″	
				44.25	
				44	42″.9
				42.25	
				40	
	Pilloor Hill	33	9	56.5	
				54	
				53.25	54.15
				53.12	
				53.75	
				54.25	
	Patticondah	53	2	33.81	
	Yerracondah	89	17	57.61	
Patticondah	Yerracondah	36	15	23.80	
Referring flag	Patticondah	53	2	33.81	
	Bodeemulla	2	15	42.9	
Patticondah	Bodeemulla	50	46	50.91	
Referring flag	Bodeemulla	2	15	42.9	
	Pilloor Hill	33	9	54.15	
Bodeemulla	Pilloor Hill	35	25	37.05	
Referring flag	Pilloor Hill	33	9	54.15	
	Patticondah	53	2	33.81	
Pilloor Hill	Patticondah	86	12	27.96	
Referring Lamp..	Pole-star's W. elongation,	3	28	57	
				52.4	
				55.25	
				53.5	

At Bodeemulla.

Kylasghur	Patticondah, ...	85	23	41.5	40.3
				39.1	
	Pilloor Hill	93	58	8.3	
				5.15	
				7.15	6.45
				7.4	
				4.25	

At Patticondah.

Rymandroog	Yerracondah	56	22	19.75	20.37
				21.	

At Patticondah, continued.

Between	*And*					
Yerracondah	Kylasghur,	101°	21′	48″.45		
				49 .1		48″.77
Kylasghur	Bodeemulla	43	49	34 .8		
				37 .15		
				34 .95		36.2
				37 .8		
				36 3		

At Yerracondah.

Referring flag	Rymandroog	35	51	24 .85	
				28 .6	
				24 .85	26.57
				28 .55	
				26 .	
	Tirtapully Hill	73	22	43 .25	
				42 .75	
				46 .25	
				46 .5	
				47 .25	
				46 .5	45.9
				46 .	
				46 .75	
				47 .25	
				46 .5	
Rymandroog	Patticondah	78	25	51 .85	
				50 .20	
				52 .95	51.06
				49 .85	
				50 .45	
Referring flag	Kylasghur	84	57	10 .	
				14 .35	
				12 .45	
				10 .5	
				13 .18	
				14 .5	12.43
				12 .	
				12 .25	
				14 .5	
				10 .75	
	Patticondah	42	34	24 .5	
				22 .	
				23 .4	23.51
				24 .4	
				23 .25	
Savendroog	Nundydroog	37	46	58 .22	
				58 .47	
				60 .10	58.82
				58 .47	

At Yerracondah, continued.

Between	*And*				
Rymandroog	Deorabetta	82°	19′	13″.5	
				15 .5	15″.21
				16 .62	
Referring flag	Savendroog	94	16	15 .	
				13 .	
				16 .5	
				16 .5	
				14 .5	14.97
				14 .75	
				14 .5	
				15 .75	
				15 .5	
				13 .75	
	Ankissgherry	143	13	21 .	
				23 .5	
				18 .5	21.35
				20.	
				23 .75	
	Rymandroog	35	51	26 .57	
	Tirtapully Hill	73	22	45 .90	
Rymandroog	Tirtapully Hill	37	31	19 .33	
Referring flag	Patticondah	42	34	23 .51	
	Kylasghur	84	57	12 .48	
Patticondah	Kylasghur	42	22	48 .97	
Referring flag	Tirtapully	73	22	45 .90	
	Ankissgherry	143	13	21 .35	
Tirtapully	Ankissgherry	69	50	35 .45	
Rymandroog	Deorabetta	82	19	15 .21	
	Tirtapully Hill	37	31	19 .33	
Deorabetta	Tirtapully Hill	44	47	55 .88	
Referring flag	Rymandroog	35	51	26 .57	
	Savendroog	24	16	14 .97	
Rymandroog	Savendroog	58	24	48 .4	
	Deorabetta	82	19	15 .21	
Savendroog	Deorabetta	23	54	26 .81	
Referring flag	Pole-star's W. elongation,	9	3	6.5	
				3 .85	
				2 .	
				3 .5	

At Yerracondah, continued.

Between	*And*				
Referring flag	Pole-star's W. elongation	9°	3′	5″.5	
				3 .75	
				4.	
				5.	
				4.25	

At Rymandroog.

Between	*And*				
Yerracondah	Patticondah	45°	11′	52″.15	51″.7
				51 .25	
	Tirtapully Hill	49	22	56 .85	
				53 .25	54.58
				55 .25	
				52 .95	
	Nundydroog	121	27	28 .5	
				33 .9	
				28 .6	30.05
				28 .3	
				30 .95	
Yerracondah	Tirtapully Hill	49	22	54 .58	
	Nundydroog	121	27	30 .05	
Tirtapully Hill	Nundydroog	72	4	35 .47	

At Tirtapully Hill.

Nundydroog	Rymandroog	51	31	46 .65	
				44 .25	
				44 .5	44.0
				42 .75	
				42.	
Rymandroog	Yerracondah	93	5	56.	
				50 .75	
				50.	51.3
				49 .75	
				50.	
Deorabetta	Yerracondah	97	51	18 .75	
				18 .37	18.0
				17.	
Yerracondah	Ankissgherry	38	16	9 .9	9.25
				8 .6	
Nundydroog	Bonnairgottah	95	53	43.	46.2
				49 .17	
Muntapum Station	Bonnairgottah	31	25	15 .03	16.1
				17 .27	
Muntapum Centre	Bonnairgottah	31	25	7 .97	8.96
				9 .95	

At Tirtapully Hill, continued.

Between	*And*					
Savendroog	Allasoor Hill	36°	33′	33″.02	30″.37
				27 .75	
Deorabetta	Savendroog	46	42	26 .25	24.5
				22 .75	
Deorabetta	Yerracondah	97	51	18 .04	
Ankissgherry	Yerracondah	38	16	9 .25	
Ankissgherry	Deorabetta	59	35	8 .79	

At Nundydroog.

Rymandroog	Tirtapully Hill	56	23	42 .75	44.
				43 .75	
				42 .75	
				46 .75	
Savendroog	Tirtapully Hill	71	26	37 .25	38.55
				38 .	
				40 .75	
				38 .5	
				38 .25	
Savendroog	Yerracondah	89	55	29 .25	29.02
				28 .5	
				28 .	
				30 .34	
Savendroog	Devaroydroog	49	53	51 .42	53.48
				52 .92	
				54 .17	
				55 .42	

At Bonnairgottah.

S. end of the Base	Muntapum Station	38	46	30 .02	31.15
				32 .28	
Muntapum Station	Tirtapully Hill	51	7	53 .25	54.62
				53 .6	
				57 .	
Tirtapully Hill	Muntapum Centre	51	5	56 .65	56.91
				56 .55	
				59 .55	
				54 .9	
Muntapum Centre	Savendroog	70	52	25 .06	23.91
				22 .77	
Savendroog	Allasoor Hill	75	50	27 .25	27.92
				28 .5	
				28 .	

At Bonnairgottah, continued.

Between	*And*					
Dodagoontah Station	Savendroog	83°	20	14″.75	16″.17
				17 .5	
				16 .25	
Savendroog	Tirtapully Hill	121	58	22 .76	22.17
				21 .59	

At the Muntapum Centre.

Bonnairgottah	Tirtapully Hill,	97	28	55 .75	55.27
				54 .85	
				55 .	
				55 .5	
	Savendroog	69	50	45 .25	46.5
				47 .75	
Tirtapully Hill	Savendroog	167	19	40 .52	41.77
				43 .02	

At the Muntapum Station.

N. end of the Base,	S. end of the Base	56	56	40 .62	41.42
				41 .4	
				42 .25	
S. end of the Base,	Bonnairgottah	35	3	56 .05	56.05
				54 .75	
				54 .25	
				57 .75	
				57 .5	
Bonnairgottah	Tirtapully Hill	97	26	51 .53	53.39
				55 .25	

At the S. End of the Base.

N. end of the Base	Muntapum Station	33	43	60 .4	60.06
				58 .15	
				61 .27	
				60 .43	
	Dodagoontah Station	17	38	47 .85	47.51
				45 .5	
				48 .72	
				47 .88	
Muntapum Station	Bonnairgottah	106	9	36 .25	37.72
				39 .76	
				.5	
				.38	

At the N. End of the Base.

Between	*And*					
S. end of the Base	Muntapum Station	89°	19′	21″.5		
				19 .75		20″.75
				20 .25		
				21 .5		
	Dodagoontah Station	67	41	24 .5		
				20 .75		
				20 .75		22.55
				21 .25		
				25 .5		

At Deorabetta.

Savendroog	Tirtapully Hill	79	40	54		
				52		
				53		52.9
				52 .75		
				52 .75		
Bonnairgottah	Ankissgherry	98	54	18		
				21 .5		20′
				20 .5		
Savendroog	Bonnairgottah	32	56	38 .25		
				36 .25		37.17
				37		
Savendroog	Bonnairgottah	32	56	37 .17		
	Tirtapully Hill	79	40	52 .9		
Bonnairgottah	Tirtapully Hill	46	44	15 .73		
	Ankissgherry	98	54	20		
Tirtapully Hill	Ankissgherry	52	10	04 .27		

II. MEASUREMENT of the Base Line near *Bangalore.*

This base was executed by Lieut. WARREN, of H. M. 33d Regt. then one of my assistants; and was intended as a datum for extending the triangles to the *Malabar* coast: and also as a base of verification to the triangular measurement brought from the base near *Madras;* and it appeared that, by continuing the computations the whole distance, and making this base one of the sides of the last triangle, the computation exceeded the measurement only $3\frac{7}{10}$ inches.

No further account need therefore be given of the manner of performing this very important and delicate part of the work, than that in addition to the apparatus used in the former measurement near St. *Thomas's Mount*, there was a transit telescope, in all respects similar to that mentioned in the account of the trigonometrical survey of *England* for fixing objects in the *alignement*, and taking the elevations and depressions at the same time. The manner of using it was as follows:

When the instrument was placed at a sufficient distance behind the commencement of an hypothenuse, so as to see distinctly the mark placed on the head of the drawing post, and the elevation or depression of the hypothenuse finally determined, the instrument being covered from the sun by a small cloth pandal, remained in that position, till four or sometimes five chains were measured. Previous to removing it, a small hooped picket was placed, by signal from the person at the transit, at a proper distance behind the termination of the last chain. In fixing the spot for this little picket, a common rod, with a sharp point was used, and the telescope of the transit depressed to the place on the ground intended to be marked. After the spot was fixed on, and the picket driven down, the instrument was removed, and placed in the alignement, with the plummet hanging over the centre of the little picket, and then a new hypothenuse was laid out, or the former one continued.

When the hypothenuse was terminated, a register picket was driven into the ground, opposite to the arrow of the chain, and in such a manner, that when the brass head was fixed thereon, the slide might

be parallel to the chain, and very near it. A piece of wood was contrived to be placed upon the brass head, and fixed by a screw, which pressed against the end of the slider, so that when that slider was moved by its own screw, the wood, thus attached, moved with it, in the direction of the alignement, as nearly as the eye could judge. On the top of this wood was placed a T, having also a motion in the same direction with the brass slider, to expedite the operation; and on the top of this T, a brass ruler, in length about six inches, was placed, having a sliding motion at right angles to the other; and in the middle of the projecting end, was a mark from which the plummet was suspended, and by the two motions, at right angles to each other, the plumb line was easily brought to coincide with the arrow terminating the hypothenuse. A like operation was gone through with the commencement of the next hypothenuse, and the arrow brought to coincide with the same plumb line. Here the distance of each arrow above or below the brass rule was noticed as in the former measurement.

If, after the removal of the transit, the same hypothenuse was continued, the register picket, at the end of the chain, was left standing; and when the instrument was brought into the alignement with the plummet over the mark, nothing was required but to place the telescope at the former elevation or depression, and move the cross vane which is applied to the heads of the pickets and stands, till the appropriate mark coincided with the horizontal wire in the focus of the eye glass.

EXPERIMENTS, *made for comparing the* CHAINS, *previous to the* MEASUREMENT.

Month.	Thermometers.					Mean of 5 Thermometers.	Comparisons.	
1804.	1	2	3	4	5			
								Divisions.
May 28. A. M.	73	73	72	72	73	72.6	The old chain exceeded the new one by	17.5
	73	74	73	72	74	73.2		16.00
	74	74	74	73	74	73.8		15.75
	74	74	74	73	73	73.6		16.00
	74	74.5	74	73	73	73.6		15.5
	74	75	74	74	74	74.2		14.75
	75	76	75	74	75	75.0		14.75
	75	77	76	75	75	75.6		15.00
	77	79	78	76	76	77.2		14.00
					Mean	74.3	Mean	15.47

EXPERIMENTS, *made for comparing the* CHAINS, *after the conclusion of the* MEASUREMENT.

Month.	Thermometers.					Mean of 5 Thermometers.	Comparisons.	
1804.	1	2	3	4	5			
								Divisions.
July 12. A. M.	78	78.5	79	78	80	78.7	The old chain exceeded the new one by	18.25
	80	80	79	80	80	79.8		18.00
	81	80	80	77	80	79.6		17.5
	80	79	80	80	78	79.4		18.00
	81	80	80	80	79	80		18.00
	81	81	79.5	81	80.5	80.6		18.25
	81.5	81.5	80	81	82	81.2		18.00
	82	81	80	81.5	81.5	81.2		17.5
	82	81	79.5	82	82	81.3		17.25
	82	81	80	82	81	81.2		18.25
					Mean	80.3	Mean	17 9

Table, containing the Particulars of the Measurement.

No. of the Hypothenuse.	Length of each in feet.	Angles of E^n & D^n	Deductions from each Hypothenuse.	Perpendicular. Ascents.	Perpendicular. Descents.	Commencement from the last. Above inches	Commencement from the last. Below inches	Mean of 5 Thermometers.	REMARKS.
			feet	feet	feet				
1	600	02 16 01″	.00648		2.7954	26. 6		94.8	
2	600	0 2 17	.00012	0.3985		3. 6		86.5	
3	400	0 22 56	.00892		2.6684		5. 9	84.9	
4	300	0 53 31.5	.03636		4.6707		7. 5	82.1	
5	400	1 13 15	.09080		8.5224		3. 5	83.4	
6	300	0 16 43.5	.00354		1.4595		5. 8	96.6	
7	900	0 13 16.5	.00675		3.4754		6. 9	81.9	
8	800	0 39 15	.05208		9.1337	6. 9		81.8	
9	300	1 15 15.	.07188		6.5663		4. 7	80.2	
10	300	0 47 28.5	.02682		4.1428		3. 4	88.5	
11	800	0 57 15	.11096		13.3220		6. 9	82	
12	300	1 3 42	.05151		5.5385		6. 4	86.7	
13	200	0 48 30	.01990		2.8215		8. 9	74	
14	600	0 12 31.5	.00402	2.1860			19. 5	83.4	
15	600	0 29 1.15	.02132		5.0658		6. 9	88.1	
16	700	1 2 30	.11564		12.7257		15. 0	82.7	
17	600	1 26 34.5	.19026		15.1086	6. 4		99.8	
18	700	1 25 49.5	.21812		17.4740		5. 2	95.8	
19	200	0 45 35	.01758		2.6518	1. 1		79.7	
20	500	0 26 10	.01459		3.8057		25. 2	84.4	
21	200	0 24 52.5	.00522	1.4471		4. 7		90.9	
22	200	1 10 41	.04228		4.1119	3. 4		79.1	
23	300	Level	.....	.....	.....	3. 5	....	77.2	
24	600	0 10 40.5	.00238		1.8631	46		82.9	
25	1100	0 58 21	.15840	18.6697		15		80.5	
26	400	0 57 57	.05680	6.7425			6. 9	87.8	
27	500	0 46 20	.04540	6.7387		22. 1		79.2	
28	700	0 16 1.5	.00756	3.2630		2. 9		79.7	
29	500	0 22 1.5	.01027		3.2033		5	80.7	
30	400	1 24 00	.11940		9.7729		10	80.2	
31	500	1 42 43.5	.22320		14.9385		4	77.1	
32	200	Level	.....	.....	.....	4. 9	....	77.1	
33	500	0 5 41	.00070		0.8266	43. 6		83.6	
34	800	0 25 33	.02208	5.9457		7. 5		85.2	
35	1000	0 12 1.5	.00610	3.4979			10. 4	75.6	
36	700	0 37 39	.04200	7.6662		8.75		86.1	
37	900	0 52 16	.10104	13.6828		9		81.1	
38	500	0 53 49.5	.06130	7.8282		16. 1		78.2	
39	200	0 40 44	.08424	14.2183			8.25	81.4	
40	800	Level	.....	....	.....	4. 9		74.3	
41	200	0 52 17	.02312	3.0416		1		67.1	
42	300	1 14 41	.07080	6.5168			3. 3	80	
43	500	2 5 1.5	.33065	18.1801		16		83.3	
44	300	1 20 55.5	.08313	7.0614			9. 9	89.1	
45	200	0 48 42	.02008	2.8331		7. 5		93.6	

Commenced the 26th May, 1804.

Table, containing the Particulars of the Measurement, continued.

No. of the Hypothenuse.	Length of each in feet.	Angles of E^n & D^n	Deductions from each Hypothenuse.	Perpendicular. Ascents.	Perpendicular. Descents.	Commencement from the last. Above inches	Commencement from the last. below inches	Mean of 5 Thermometers.	REMARKS.
			feet	feet	feet				
46	300	0° 9′ 27″	.00114		0.8247		6.75	71.6	
47	200	1 10 46.5	.04239		4.1172		8.5	81	
48	500	2 00 15	.30587		17.4860		8.8	88.6	
49	400	0 42 30	.03056		4.9450	15. 2		89.9	
50	300	0 11 47	.00177		1.0283	11. 9		82.1	
51	200	0 16 30	.00230	.9599		13. 9		80.8	
52	300	2 8 27	.20940	11.2067		11. 7		89.1	
53	500	1 13 31.5	.11437	10.6929			10. 4	90.8	
54	400	0 51 43.5	.05128	6.0182			5.	74	
55	200	0 32 31.5	.00896		1.8922		17	88.9	
56	400	1 38 9	.16300		11.4178		8. 3	94.2	
57	300	2 33 58.5	.30087		13.4323	0. 3		91.2	
58	200	0 54 24	.02504		3.1647	5. 5		82.2	
59	200	0 32 3	.00868	1.8645		23. 8		71.8	
60	600	1 58 15	.35490	20.6344		12. 8		84.7	
61	600	1 51 25.5	.31514	19.4439			8. 6	93.2	Completed 11th July.
62	700	1 26 27	.22134	17.6012			4. 5	91.9	
63	500	0 38 16.5	.03100	5.5667			14	89.8	
64	800	0 6 14	.00128		1.4505		9. 2	79.6	
65	400	0 27 27	.01276		3.1939	7. 5		87.8	
66	500	1 13 4.5	.11300		10.6275		6. 2	73	
67	400	1 42 4.5	.17630		11.8752		12	86.7	
68	500	2 26 30	.45395		21.3011	8. 6		79.5	
69	200	0 14 3	.00167		0.8174	13		71.7	
70	200	0 36 16.5	.01113	2.1103		3. 8		79.1	
71	300	2 16 36	.21381	11.9174		25		94.9	
72	200	1 47 22	.09752	6.2453			2. 3	84.3	
73	400	1 11 43.5	.18208	8.3450		21. 2		72.4	
74	900	0 41 11	.06453	10.7815		4. 9		87.6	
75	300	0 35 13	.01573		3.0732		11	76.8	
76	200	1 1 43	.03222		3.5903	0. 5		70.8	
77	300	0 6 24	.00053	0.5585		2.75		77.6	
78	200	2 23 45	.17483	8.3606			7. 5	87	
79	400	1 3 28.5	.06820	7.3852		26. 5		87.8	
80	800	0 32 13	.03512		7.4971		22. 1	80.2	
81	700	0 22 59	.01568	4.6799		14.37		70.7	
82	600	0 47 22	.05697	8.2668		11		74.6	
83	400	0 59 35	.06005	6.9325		11.55		83	
84	400	1 3 20	.06788	7.3687		7. 1		79	
85	300	0 10 00	.00126	0.8727			3. 6	76.7	
		Descent from the termination of the base to the ground				 34			
39800			6.63475	307.7304	278.4189	514.52	389.2	83.1	

North above the South extremity of the base = 39.74 feet.

	Feet.
At the commencement the old chain exceeded the new one 15.47 divisions of the micrometer = 0.00619 feet. Therefore 398 × 100.00619 feet will be the measure in terms of the new chain - -	39802.4636
At the conclusion the old chain exceeded the new one 17.9 divisions, and had therefore increased 2.43 divisions = 0.00097 feet. Hence $398 \times \frac{0.00097}{2} = 0.1930$ feet, is the correction for the wear, which add - - - - - - - -	+ 0.1930
The sum of the deductions from col. 4th is 6.63475 feet, which being increased in the ratio of 100 to 100.00619 will be 6.6351 feet, which subtract - - -	— 6.6351
Hence the apparent horizontal distance will be - - - - - - - -	39796.0215
The correction for the expansion and reduced to the standard temperature of 62° will be $\frac{(83°.1-50) \times 0.0074-(62°-50°) \times 0.01237}{12} \times 39796.$ 0215 feet, which add - - - -	+ 3.1996
Hence the corrected measure of the base for the temperature of 62° will be - -	39799.2211
To which add the correction for reducing all the hypothenuses to the level of the south end of the base - - -	+ 0.0893
	39799.3104
Which being reduced to the level of the sea, will be - - - - - -	39793.7

III. TRIANGLES.

Hanandamulla from Pilloor Hill 110381.9

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess	Error.	Angles for Calculation.	Distance in feet.
45	Hanandamulla	98° 13′ 33″.6	—1″.8			98° 13′ 31″.5	
	Pilloor Hill.....	42 59 08	—0.7			42 59 7	
	Kylasghur	38 47 22.4	—0.6			38 47 21.5	
		180 00 04		3″.1	+0″.9	180 00 00	
	Kylasghur from { Hanandamulla						120135
		Pilloor Hill					174387.3

Hanandamulla from Kylasghur 120128

46	Hanandamulla	98 13 33.6	—0.8			98 13 31.5	
	Kylasghur	38 47 22.4	—0.6			38 47 21.5	
	Pilloor Hill.....	42 59 8	—0.7			42 59 7	
		180 00 04		3.1	+0.9	180 00 00	
	Pilloor Hill from { Hanandamulla						110375.6
		Kylasghur					174377.3

Kylasghur from Pilloor Hill 174382.3

47	Kylasghur	86 12 27.96	—3.7			86 12 24.25	
	Pilloor Hill.....	50 13 26.32	—2.14			50 13 24.25	
	Patticondah	. . .				43 34 11.5	
						180 00 00	
	Patticondah from { Kylasghur						194447.4
		Pilloor Hill					252452.9

TRIANGLES—CONTINUED.

Kylasghur from Pilloor Hill 174382.3

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
48	Kylasghur	35 25′ 37″.05	—0″.8			35° 25′ 35″.5	
	Pilloor Hill.....	50 36 21.07	—0.7			50 36 20.5	
	Bodeemulla.....	93 58 6.45	—1.7			93 58 4	
		180 00 4.57		3.2	+1″.37	180 00 00	
	Bodeemulla from { Kylasghur						135085.8
		Pilloor Hill					101325.1

Kylasghur from Bodeemulla 135085.8

49	Kylasghur	50 46 50.9	—1.3			50 46 48.75	
	Bodeemulla.....	85 23 40.3	—2.2			85 23 37.25	
	Patticondah	43 49 36.2	—1.3			43 49 34	
		180 00 7.41		4.8	+2.61	180 00 00	
	Patticondah from { Kylasghur						194447.6
		Bodeemulla					151131.8

Kylasghur from Patticondah 194447.5

50	Kylasghur	36 15 24.6	—1.5			36 15 25	
	Patticondah	101 21 48.77	—4.8			101 21 45.75	
	Yerracondah	42 22 48.97	—1.4			42 22 49.25	
		180 00 2.34		7.7	—5.36	180 00 00	
	Yerracondah from { Kylasghur						282822.5
		Patticondah					170607.3

TRIANGLES, *taken up at the* BASE, *and continued back to* PERRACONDAH *and* KYLASGHUR.

N. end of the Base from the S. end of the Base 39793.7

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
51	N. end of the Base	89° 19′ 20″.75	—0″.12			89° 19′ 20″	
	S. end of the Base	33 44 0 .06	—0 .06			33 43 59 .3	
	Muntapum Station	56 56 41 .42	—0 .06			56 56 40 .7	
		180 00 02 .23		0″.24	+1″.99	180 00 00	
	Muntapum Station from N. end of the Base						26365.95
	Muntapum Station from S. end of the Base						47475.03

S. end of the base from Muntapum Station 47475.03

52	S. end of the Base	106 9 37 .72	—0 .33			106 9 35 .9	
	Muntapum Station	35 3 56 .05	—0 .08			35 3 54 .5	
	Bonnairgottah	38 46 31 .15	—0 .07			38 46 29 .6	
		180 00 04 .92		0 .47	+4 .45	180 00 00	
	Bonnairgottah from S. end of the Base						43551.7
	Bonnairgottah from Muntapum Station						72811.7

Muntapum Station from Bonnairgottah 72811.7

53	Muntapum Station	97 26 53 .39	—1 .07			97 26 53 .9	
	Bonnairgottah	51 7 54 .62	—0 .37			51 7 54 .2	
	Tirtapully Hill	31 25 16 .15	—0 .41			31 25 11 .9	
		180 00 4 .16		1 .85	+2 .31	180 00 00	
	Tirtapully Hill from Muntapum Station						108746.[illegible]
	Tirtapully Hill from Bonnairgottah						138492.[illegible]

TRIANGLES—CONTINUED.

Bonnairgottah from Tirtapully Hill 138492.9

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
54	Bonnairgottah	51° 5′ 56″.91	—0″.4			51° 5′ 56″.5	
	Tirtapully Hill	31 25 8 .96	—0 .4			31 25 9	
	Muntapum Centre	97 28 55 .27	—1 .1			97 28 54 .5	
		180 00 01 .14		1″.9	—0″.76	180 00 00	
	Muntapum Centre from	Bonnairgottah					72815.6
		Tirtapully Hill					108705.1

Muntapum Centre from Bonnairgottah 72815.6

55	Muntapum Centre	69 50 46 .5	—0 .6			69 50 46	
	Bonnairgottah	70 52 23 .91	—0 .6			70 52 23 .5	
	Savendroog Station	39 16 50 .88	—0 .5			39 16 50 .5	
		180 00 01 .29		1 .7	—0 .41	180 00 00	
	Savendroog from	Munpatum Centre					108661.6
		Bonnairgottah					107968.7

With the sides *Muntapum* centre from *Tirtapully* hill 108705.1 feet, and *Muntapum* centre from *Savendroog* = 108661.6 feet, and the included angle at *Muntapum* = 167° 19′ 29″.3 the side *Savendroog* from *Tirtapully* hill is found = 216038.9 feet.

Again with the sides *Bonnairgottah* from *Tirtapully* hill 138492.9 feet, and *Bonnairgottah* from *Savendroog* = 107968.7 feet, and the included angle at *Bonnairgottah* = 121° 58′ 19″ the side *Savendroog* from *Tirtapully* hill is found = 216038.8 feet differing from the above $\frac{1}{10}$ of a foot, and of which the mean is 216038.85 feet.

TRIANGLES—CONTINUED.

Savendroog from Tirtapully Hill 216038.85.

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Savendroog	53° 36′ 47″.5	—1″.9			53° 36′ 45″.5	
	Tirtapully Hill	46 42 24 .5	—1 .9			46 42 22 .5	
	Deorabetta	79 40 52 .9	—2 .8			79 40 52	
56		180 00 04 .9		6′ .6	—1″.7	180 00 00	
	Deorabetta from Savendroog						159828.8
	Deorabetta from Tirtapully Hill						176775.8
	Savendroog	37 44 43.15	—1.9			37 44 41.25	
	Tirtapully Hill	70 48 41 9	—2.4			70 48 42.5	
	Nundydroog.....	71 26 38.55	—2.4			71 26 36.25	
57		180 00 03.6		6.7	—3.1	180 00 00	
	Nundydroog from Savendroog						215226.3
	Nundydroog from Tirtapully Hill						139499.8

Tirtapully Hill from Nundydroog 139499.8.

	Tirtapully Hill	51 31 44.03	—1.0			51 31 43	
	Nundydroog.....	56 23 44	—1.0			56 23 42.5	
	Rymandroog	72 4 35.47	—1.2			72 4 34.5	
58		180 00 3.5		3.15	+.35	180 00 00	
	Rymandroog from Tirtapully Hill						122112.3
	Rymandroog from Nundydroog						114788.1

TRIANGLES—CONTINUED.

Tirtapully Hill from Rymandroog 122112.3.

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Tirtapully Hill	93° 5′ 51″3	−2″.13			93° 5′ 49″	
	Rymandroog	49 22 54.58	−1 .04			49 22 53	
	Yerracoudah	37 31 19.33	−1 .03			37 31 18	
59		180 00 5 21		4″.2	+1″.01	180 00 00	
	Yerracondah from	Tirtapully Hill					152185.5
		Rymandroog					200199.8

Tirtapully Hill from Deorabetta 176775.8.

	Tirtapully Hill	97 51 18.04	−3.65			97 51 14.4	
	Deorabetta	. . .				37 20 51.1	
	Yerracondah.....	44 47 55.83	−1.28			44 47 54.5	
60						180 00 00	
	Yerracondah from	Tirtapully Hill					152197.5
		Deorabetta					241529.3
	Tirtapully Hill	59 35 8.79	−1.76			59 35 7	
	Deorabetta	52 10 4.27	−1.67			52 10 2.6	
	Ankissgherry	. . .				68 14 50.4	
61						180 00 00	
	Ankissgherry from	Tirtapully Hill					150322.7
		Deorabetta					164136.3

TRIANGLES—CONTINUED.

Tirtapully Hill from Ankissgherry 150322.7.

TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
Tirtapully Hill	38° 16′ 9″.25	—0″.9			38° 16′ 8″.25	
Ankissgherry	. . .				71 53 17.5	
Yerracondah	69 50 35 .4	—1 .2			69 50 34.25	
					180 00 00	
Yerracondah from { Tirtapully Hill						152196.3
Yerracondah from { Ankissgherry						99177.5

Tirtapully Hill from Yerracondah 152196.9

Tirtapully Hill	93 5 51.3	—2.13			93 5 49	
Yerracondah.....	37 31. 19.39	—1.03			37 31 18	
Rymandroog	49 22 54.58	—1.04			49 22 53	
	180 00 05.26		4.2	+ 1.06	180 00 00	
Rymandroog from { Tirtapully Hill						122121.2
Rymandroog from { Yerracondah						200214.3

he side from *Tirtapully* hill to *Yerracondah* is the mean distance nd in the triangles *Tirtapully* hill, *Deorabetta*, and *Yerracondah* *Tirtapully* hill, *Ankissgherry* and *Yerracondah*.

Yerracondah from Rymandroog 200214.3.

Yerracondah	78 25 51.06	—3 .3			78 25 47.75	
Rymandroog	45 11 51.7	—2 .4			45 11 52	
Patticondah	56 22 20.37	—2 .4			56 22 20.25	
	180 00 3.13		7.9	—4.77	180 00 00	
Patticondah from { Yerracondah						170605.9
Patticondah from { Rymandroog						235558.9

TRIANGLES—CONTINUED.

Yerracondah from Patticondah 170605.9.

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance feet.
65	Yerracondah	42 22 48".97	—1".4			42 22 49".25	
	Patticondah	101 21 48 .77	—4 .8			101 21 45 .75	
	Kylasghur	36 15 24 .6	—1 .5			36 15 25	
		180 00 2 .34		7".7	—5".36	180 00 00	
	Kylasghur from	Yerracondah					282820
		Patticondah					194445

SECTION II.

Series of triangles direct from the Base near *Bangalore*, to *Mangalore* on the *Malabar* coast.

IV. ANGLES.

At Dodagoontah Station.

Between	*And*				
Bonnairgottah	Savendroog	61°	34′	54″	
				50	
				49	51″.2
				55	
				50	
Referring Lamp.....	Savendroog	104	4	29.68	
	Pole-star's W. elongation ...	1	31	53	
				56.25	
				51 25	
				48.5	
				46.25	
				47.5	
				45.5	
				45.5	
				43.5	
				44.5	

At Savendroog.

Between	*And*				
Deorabetta	Bundhully Hill	...44°	41	41″.25	
				40 .5	
				40 .75	
				41 .5	40″.93
				40 .25	
				41 .75	
				40 .5	
Devaroydroog	Nundydroog	50	14	6 .75	
				7 .	
				5 .25	6.37
				3 .5	
				7 .25	
				8 .5	
Cheetkul Hill	Devaroydroog	 6	56	11 .33	
				10 .83	
				16 .58	13.43
				16 .33	
				12 .08	
Devaroydroog	Bomanelly Hill	51	25	1 .75	
				2	
				2 .5	2.12
				2. 25	
Bomanelly Hill	Mullapunnabetta	...28	47	59 .91	
				61 .16	
				63 .66	62.35
				64 .66	
Bundhully Hill	Mysoor Hill	47	6	33 .6	
				34 .1	33.68
				33 .35	
Mysoor Hill	Mullapunnabetta	...46	23	6 .34	
				5 .84	6.26
				6 .59	
Referring Lamp	Mullapunnabetta	...90	39	58 .37	
				59 .25	
				60 .75	
				61. .25	
				62 .5	
				61 .5	
				61	61.16
				62 .25	
				62 .75	
				59 .25	
				60 .5	
				62	
				63 .75	

At Savendroog, continued.

Between	*And*				
Referring Lamp.....	Yerracondah.....	92°	4′	51″.25	
				49 .5	
				47 .75	
				49 .5	
				49 .5	49″.45
				48 .55	
				48 .5	
				50 .62	
				50 .5	
				48 .87	
Pole-star's greatest W. elongation		2	28	56 .75	
				57 .25	
				54	
				53 .5	
				57 .75	
				56	
				58 .75	
				58 .75	
				58 .25	
				61 .12	

At Devaroydroog.

Cheetkul Hill.....	Rungaswamy Hill	82	48	17 .25	17.62
				18	
Bomanelly	Savendroog.....	89	33	42	44.8
				47 .6	
Savendroog	Nundydroog	79	52	7 .75	
				8 .75	
				8	8.45
				8 .25	
				9 .5	
Rungaswamy	Bomanelly Hill ...	44	59	30 .35	
Cheetkul Hill.....	Rungaswamy	82	48	17 .62	
Bomanelly Hill	Cheetkul Hill.....	127	47	47 .97	
Savendroog	Cheetkul Hill.....	38	14	4 .75	
Bomanelly Hill	Savendroog	89	33	43 .22	
Bomanelly Hill	Savendroog	89	33	44 .8	
Bomanelly Hill	Savendroog	89	33	44 .01	

At Bomanelly Hill.

Hytalloo Flag.....	Mullapunnabetta	175	40	1 38	
				0 .87	
				0 .75	

At Bomanelly Hill, continued.

Between	*And*				
Hytalloo Flag.....	Savendroog.....	70°	9′	19″.75	
				19 .75	
				19	19″.94
				21 .5	
Referring Flag	Mullapunnabetta	86	15	22 .75	
				26 .5	
				24	24.34
				24 .12	
	Daesauneegooda	131	4	38 .12	
				39 .75	
				37 .25	38.78
				40	
Hytalloo Flag.....	Mullapunnabetta	175	40	1	
	Savendroog	70	9	19 .94	
Mullapunnabetta	Savendroog	105	30	41 .06	
Referring Flag.....	Mullapunnabetta	86	15	24 .34	
	Daesauneegooda	131	4	38 .78	
Daesauneegooda	Mullapunnabetta	44	49	14 .44	
Daesauneegooda	Mullapunnabetta	44	49	15 .87	
				12 .5	
				14 .88	14.90
				16. 37	
Ditto	Do. by Referring Lamp.....				14 .44
				Mean...	14.67

At Mullapunnabetta.

Referring Flag	Bomanelly Hill 143		22	60.5	
				59 .5	
				60 .75	
				63	60.25
				58	
				61	
				59	

At Mullapunnabetta, continued.

Between	*And*				
Referring Flag	Savendroog	97°	41′	34″.25	
				36 .38	
				36 .62	
				34	
				35 .4	
				35 .25	
				32 .5	
				32 .5	34″.36
				33	
				34 .5	
				35 .25	
				33	
				36 .5	
				33 .8	
				33	
				33 .87	
	Mysoor Hill	37	59	12	
				10 .75	
				12 .75	
				12 .25	
				14	
				10 .5	12.58
				12	
				12 .25	
				14	
				13 .25	
				14 .5	
				12 .75	
	Daesauneegooda	150	36	32	
				32 .75	
				25 .25	33.6
				35 .5	
				32 .5	
	Koondoor Hill	71	37	24 .25	
				24 .75	22.94
				22 .75	
				20	
Referring Flag	Koondhully Hill...	55	38	43	
				44 .75	
				43	
				43 .75	44.68
				45 .25	
				46 .25	
				46 .75	
Koondhully Hill	Hannabetta	45	31	61 .5	
				61	
				61 .75	60.65
				60 .5	
				58 .5	

At Mullapunnabetta, continued.

Between	*And*				
Referring flag	Bolroyndroog	96°	36′	48″	
				46.25	
				44	
				49.25	
				44.75	46″.
				48	
				45.25	
				47·5	
				45.75	
				44.25	
Referring Flag	Bomanelly Hill	143	23	00.25	
	Savendroog	97	41	34.36	
Bomanelly Hill	Savendroog	45	41	25.89	
Referring Flag	Mysoor Hill	37	59	12.58	
	Savendroog	97	41	34.36	
Savendroog	Mysoor Hill	59	42	21.78	
Referring Flag	Bomanelly Hill	143	23	00.25	
	Daesauneegooda	150	36	33.6	
Bomanelly Hill	Daesauneegooda	66	00	26.15	
Referring Flag	Daesauneegooda	150	36	33.6	
	Koondoor Hill	71	37	22.94	
Daesauneegooda	Koondoor Hill	78	59	10.66	
Referring Flag	Daesauneegooda	150	36	33.6	
	Koondhully Hill	55	38	44.68	
Daesauneegooda	Koondhully Hill	94	57	48.92	
Hannabetta	Koondhully Hill	45	32	00.65	
Hannabetta	Daesauneegooda	49	25	48.27	
Referring Flag	Koondoor Hill	71	37	22.94	
	Koondhully Hill	55	38	44.68	
Koondoor Hill	Koondhully Hill	15	58	38.26	
Hannabetta	Koondhully Hill	45	32	00.65	
Hannabetta	Koondoor Hill	29	33	22.39	
Referring Flag	Koondhully Hill	55	38	44.68	
	Balroyndroog	96	36	46.3	
Koondhully Hill	Balroyndroog	40	58	1.62	

At Mullapunnabetta, continued.

Between	*And*				
Referring Lamp ..	Pole-star's greatest W. elongation	170°	43′	15″.25	
				18	
				18.37	
				19.13	
				19.38	
				20	
				19.62	
				20	
				19.25	
				19.25	
		170	43	49	
				48.25	
				48.13	
				47.75	
				49.25	
				48.2	
				48.5	
				50.25	

At Bundhully.

Savendroog	Deorabetta	37	30	28.5	30″.12
				31.75	
	Mysoor Hill	80	2	42.44	44.19
				45.94	

At Cheetkul Hill.

Savendroog	Devaroydroog	134	49	45.13	45.16
				44.25	
				44.25	
				47	

At Mysoor Hill.

Referring flag	Bundhully Hill ..	55	26	46	45.22
				45.75	
				43.9	
	avendroog	108	17	44	45.19
				43.75	
				46	
				47	

At Mysoor Hill, continued.

Between	*And*					
Referring Flag.....	Mullapunnabetta	177	47	26″		
				25.45		
				27.89		
				28.5		
				27.		26″.5
				27.5		
				25.25		
				25.5		
				25.43		
Referring Flag.....	Bundhully Hill ..	55	26	45.22		
	Savendroog.....	108	17	45.19		
Bundhully Hill.....	Savendroog.....	52	50	59.97		
Referring Flag.....	Savendroog.....	108	17	45.19		
	Mullapunnabetta	177	47	26.5		
Savendroog	Mullapunnabetta	73	54	48.31		

At Daesauneegooda.

Mullapunnabetta....	Bomanelly Hill ..	69	10	25.38		25.94
				26.5		
	Hannabetta.....	89	54	5.63		
				5		6 ,
				7.37		
	Koondoor Hill ..	47	3	26.5		24.93
				23.37		
Hannabetta	Koondoor Hill ..	42	50	41.62		40.37
				39.13		

At Koondoorbetta.

Mullapunnabetta....	Daesauneegooda..	53	57	29		
				32.75		31.17
				31.75		
	Hannabetta.....	119	34	16.25		16.25
	Balroyndroog	141	10	47.5		47.25
				47		
Koondhully Hill	Balroyndroog	75	12	19		17.37
				15.75		
Mullapunnabetta....	Balroyndroog	141	10	47.25		
	Hannabetta.....	119	34	16.25		
Balroyndroog	Hannabetta.....	21	36	31		

At Koondoorbetta, continued.

Between	*And*				
Mullapunnabetta	Daesauneegooda	53°	57′	31″.17	
	Hannabetta	119	34	16 .25	
Daesauneegooda	Hannabetta	65	36	45 .08	
Mullapunnabetta	Balroyndroog	141	10	47 .25	
Koondhully Hill	Balroyndroog	75	12	17 .37	
Mullapunnabetta	Koondhully Hill	143	36	55 .38	

At Koondhully Hill.

Koondoorbetta	Bettatipoor Hill ..	78	18	11.5	12″.08
				10.75	
				14	
Mullapunnabetta	Bettatipoor Hill ..	57	53	42.5	41.44
				41	
				42.5	
				39.75	
	Balroyndroog	99	12	24.25	22.25
				22.25	
				20.25	
Koondoorbetta	Bettatipoor Hill ..	78	18	12.08	
Mullapunnabetta	Bettatipoor Hill ..	57	53	41.44	
Mullapunnabetta	Koondoorbetta ..	20	24	30.64	

At Hannabetta.

Daesauneegooda	Koondoorbetta ..	71	32	35	35
				35	
Koondoorbetta	Balroyndroog	136	19	19.87	17.37
				14.18	

At Balroyndroog.

Referring flag	Bullamully Hill ..	169	57	5.13	4.41
				6.37	
				3.75	
				2.37	
	Koondhully Hill ..	88	44	51	52.75
				54.5	

At Balroyndroog, continued.

Between	*And*					
ReferringLamp,	Pole-star's W. elongation	56°	46′	43″.5		
				43 .75		
				43 .25		
				43		
				44 .5		
				44 .25		
				43 .44		
Referring Flag	Koondhully Hill	88	44	52 .75		
	Bullamully Hill	169	57	4 .41		
Koondhully Hill	Bullamully Hill	81	12	11 .66		

At Bullamully.

Koondhully Hill	Balroyndroog	57	46	30		
				29.25		
				27.25	30″.42	
				31.5		
				31.75		
				32.75		
Balroyndroog	Kunnoor Hill	118	21	13.5	13.5	
	Bullanaudgooda	80	53	15.75		
				22		
				21.75	19.19	
				17.25		
Bullanaudgooda	Goompay Hill	79	17	39		
				43.13	42.17	
				44.37		
Goompay Hill	Kuddapoonabetta	89	14	44.17		
				41.13	41.56	
				39.38		
Meejar Hill	Kuddapoonabetta	34	37	35.25	32.87	
				30.5		
Balroyndroog	Mangalore	123	11	27.75		
				25.5	25.92	
				24.5		
Kunnoor Hill	Balroyndroog	118	21	13.5		
Bullanaudgooda	Balroyndroog	80	53	19.19		
Kunnoor Hill	Bullanaudgooda	160	45	27.31		
	Goompay Hill	79	17	42.17		
Goompay Hill	Kunnoor Hill	81	27	45.14		
	Kuddapoonabetta	89	14	45.56		
Kunnoor Hill	Kuddapoonabetta	7	46	56.42		
Balroyndroog	Bullanaudgooda	80	53	19.19		
Bullanaudgooda	Goompay Hill	79	17	42.17		

At Bullamully, continued.

Between	*And*			
Balroyndroog	Goompay Hill	160°	11′	1″.36
	Mangalore	123	11	25.92
Goompay Hill	Mangalore	76	37	32.72
Balroyndroog	Kunnoor Hill	118	21	13.5
Kunnoor Hill	Kuddapoonabetta	7	46	56.42
Kuddapoonabetta ..	Balroyndroog	110	34	17.08
Meejar Hill	Kuddapoonabetta	34	37	32.87
	Balroyndroog	75	56	44.21

At Ungargooda.

Balroyndroog	Bullamully Hill ..	91	20	62.25	60″.75
				59.25	
				59.5	
				62	
Bullamully Hill	Meejar Hill	126	11	27.5	27.88
				25.75	
				30.25	
				28.	
Meejar Hill	Booggargooda ..	28	59	12.75	10.25
				13	
				9	
				6.25	

At Booggargooda.

Bullamully Hill	Meejar Hill	113	5	40.75	43.08
				43.25	
				41	
				44	
				45.75	
				44	
				41	
				44.75	
	Ungargooda	21	3	58	55.5
				55	
				54	
				55.75	
				56.5	
				53.75	
Bullamully Hill	Meejar Hill	113	5	43.08	
	Ungargooda	21	3	55.5	
Meejar Hill	Ungargooda	134	9	38.58	

At Meejar Hill.

Between	*And*				
Bullamully Hill	Booggargooda	54° 37′	20″.62		
			17 .88	18″.67	
			17 .5		
	Kuddapoonabetta	49 7	52		
			52 .25	53.67	
			56 .75		
Kuddapoonabetta ..	Kooliebogooda ..	37 55	18 .5		
			19 .75	19.94	
			20 .25		
			21 .25		

At Kuddapoonabetta.

Bullamully Hill	Meejar Hill	96 14	31 .5	
			31 .25	31.37
	Kunnoor Hill	48 38	44 .25	
			46 .75	45.5
Kooliebogooda	Meejar Hill	58 24	55 .25	
			57 .75	
			55	56.62
			58 .5	
	Eedgah Station ..	86 11	35 .5	
			30	32.08
			30 .75	

At Kunnoor Hill.

Bullamully Hill	Kuddapoonabetta	123 34	21 .25	
			21	21.12

V. TRIANGLES.

Bonnairgottah from Savendroog 107968.7

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Bonnairgottah	83° 20′ 16″.17	—0″.79			83° 20′ 15″.4	
	Savendroog.....	. . .				35 4 53 .8	
	Dodagoontah Stat[n].	61 34 51 .29	—0 .52			61 34 50 .8	
66						180 00 00	
	Dodagoontah Station from	Bonnairgottah					70556.7
		Savendroog					121933.2

TRIANGLES—CONTINUED.

Savendroog from Deorabetta 159828.8.

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Savendroog	44° 41′ 40″.93	—1″.4			44° 41′ 39″.5	
	Deorabetta	97 47 57 .75	—4 .0			97 47 52	
	Bundhully	37 30 30.12	—1 .5			37 30 28 .5	
67		180 00 08 .8		6″.9	+1″.9	180 00 00	
	Bundhully from Savendroog						260072
	Bundhully from Deorabetta						184620.5

Savendroog from Nundydroog 215226.3.

	Savendroog	50 14 6.37	—1.9			50 14 4.3	
	Nundydroog.....	49 53 53.48	—1.9			49 53 51.6	
	Devaroydroog	79 52 8.45	—2.8			79 52 4.1	
68		180 00 8.3		6.54	+1.76	180 00 00	
	Devaroydroog from Savendroog						167238.7
	Devaroydroog from Nundydroog						168058.3

Savendroog from Deorabetta 159828.8.

	Savendroog	78 57 47.5	—2.26			78 57 45.1	
	Deorabetta	47 20 38.73	—1 55			47 20 37	
	Allasoor Hill.....	53 41 39.59	—1.69			53 41 379.	
69		180 00 05.82		5.4	+0.42	180 00 00	
	Allasoor Hill from Savendroog						145859.1
	Allasoor Hill from Deorabetta						194662.8

TRIANGLES—CONTINUED.

Savendroog from Allasoor Hill 145859.1

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
70	Savendroog	55° 41′ 34″.92	—1″.3			55° 41′ 32″.8	
	Allasoor Hill.....	62 10 43 .71	—1 .4			62 10 41 .5	
	Cheetkul Hill	62 7 47 .87	—1 .4			62 7 45 .7	
		180 00 06 .5		4″.2	+2″.3	180 00 00	
	Cheetkul Hill from Savendroog						145924.8
	Cheetkul Hill from Allasoor						136292.3

Savendroog from Cheetkul Hill 145924.8

71	Savendroog	6 56 13 .43	+0 .04			6 56 12 .5	
	Cheetkul Hill.....	134 49 15 .16	—2			134 49 42 .5	
	Devaroydroog	38 14 4 .75	+1 .26			38 14 5	
		180 00 3 .34		0 .7	+2 .64	180 00 00	
	Devaroydroog from Savendroog						167224.8
	Devaroydroog from Cheetkul Hill						28477.0

Savendroog from Devaroydroog 167229.25

72	Savendroog.....	51 25 2 .12	—2 .1			51 25 00	
	Devaroydroog	89 33 44 .01	—4 .1			89 33 40	
	Bomanelly Hill.....	. . .				39 1 20	
						180 00 00	
	Bomanelly Hill from Savendroog						265594.9
	Bomanelly Hill from Devaroydroog						207622.1

TRIANGLES—CONTINUED.

Savendroog from Bomanelly Hill 265594.9

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
73	Savendroog	28° 48′ 2″ .35	—2″			28° 48′ 0 ″.4	
	Bomanelly Hill	105 30 41 .06	— 7.5			105 30 33 .6	
	Mullapunnabetta ...	45 41 25 .89	—1 .3			45 41 26	
		180 00 9 .3		10″.8	—1″.5	180 00 00	
	Mullapunnabetta from	Savendroog					357646.2
		Bomanelly Hill					178809.7

Savendroog from Bundhully Hill 260072

74	Savendroog	47 6 33 .68	—4 .1			47 6 29 .5	
	Bundhully	80 2 44 .19	—6 .2			80 2 38	
	Mysoor Hill	52 50 59 .97	—4 .2			52 50 52 .5	
		180 00 17 .84		14 .5	+3.34	180 00 00	
	Mysoor Hill from	Savendroog					321385.4
		Bundhully					239060

Savendroog from Mysoor Hill 321385.4

75	Savendroog	46 23 6 .26	—5 .7			46 23 00 .5	
	Mysoor Hill	73 54 48 .31	—7 .7			73 54 44	
	Mullapunnabetta ...	59 42 21 .78	—6 .3			59 42 15 .5	
		180 00 16 .35		19 .7	—3 .35	180 00 00	
	Mullapunnabetta from	Savendroog					357641.2
		Mysoor Hill					269475.6

TRIANGLES—CONTINUED.

Savendroog from Mullapunnabetta 357641.2

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Savendroog Station	28° 48′ 2″.35	—2″.			28° 48′ 00″.4	
	Mullapunnabetta ..	45 41 25 .37	—1 .3			45 41 26	
	Bomanelly Hill	105 30 41 .06	—7 .5			105 30 33 .6	
76		180 00 8. 78		10″8	—2″.02	180 00 00	
	Bomanelly Hill from	Savendroog					265592.8
		Mullapunnabetta					178807.7

Savendroog from Mullapunnabetta 357641.2

	Savendroog Station	46 23 6.26	—5.7			46 23 0.5	
	Mullapunnabetta ..	59 42 21.78	—6.3			59 42 15.5	
	Mysoor Hill	73 54 48.31	—7.7			73 54 44	
77		180 00 16.35		19.7	—3.35	180 00 00	
	Mysoor Hill from	Savendroog Station					321387.6
		Mullapunnabetta					269477.5

Mullapunnabetta from Bomanelly 178807.7

	Mullapunnabetta ..	66 00 26.15	—1.8			66 0 23.8	
	Bomanelly Hill	44 49 14.67	—1.5			44 49 12.7	
	Daesauneegooda ..	69 10 25.94	—1.9			69 10 23.5	
78		180 00 06.76		5.2	+1.56	180 00 00	
	Daesauneegooda from	Mullapunnabetta					134849 9
		Bomanelly Hill					174777.4

TRIANGLES—CONTINUED.

Mullapunnabetta from Daesauneegooda 134849.9

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Mullapunnabetta ..	49° 25' 48".27	—1".25			49° 25' 47"	
	Daesauneegooda ..	89 54 6 .00	—2 .37			89 54 3 .6	
	Hannabetta	. . .				40 40 90 .4	
79						180 00 00	
	Hannabetta from	Mullapunnabetta					206922.5
		Daesauneegooda					157180.4

Mullapunnabetta from Hannabetta 206922.5

	Mullapunnabetta ..	29 33 22.39	—0.02			29 33 22.4	
	Hannabetta	. . .				30 52 24.2	
	Koondoor Hill	119 34 16.25	—2.89			119 34 13.4	
80						180 00 00	
	Koondoor Hill from	Mullapunnabetta					122081.6
		Hannabetta					117355.7

Mullapunnabetta from Daesauneegooda 134849.9

	Mullapunnabetta ..	78 59 10.66	—1 .6			78 59 9.1	
	Daesauneegooda ..	47 3 24.93	—1 .1			47 3 22.3	
	Koondoor Hill	53 57 31.17	—1 .1			53 57 28.6	
81		180 0 6.76		3".8	+2".96	180 00 00	
	Koondoor Hill from	Mullapunnabetta					122081.2
		Daesauneegooda					163700.6

TRIANGLES—CONTINUED.

Daesauneegooda from Hannabetta 157180.4

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Daesauneegooda ..	42° 50′ 40″.37	—1″.2			42° 50′ 40″.4	
	Hannabetta	71 32 34 .00	—1 .5			71 32 34 .7	
	Koondoor Hill	65 36 45 .08	—1 .4			65 36 44 .9	
82		180 00 0 .45		1″.1	—3″.65	180 00 00	
	Koondoor Hill from Daesauneegooda						163701.8
	Koondoor Hill from Hannabetta						117355.7

Hannabetta from Koondoorbetta 117355.7

	Hannabetta	136 19 17.37	—3.96			136 19 13.4	
	Koondoorbetta	21 36 31	+0.85			21 36 31.9	
	Balroyndroog	. . .				22 4 14.7	
83						180 00 00	
	Balroyndroog from Hannabetta						115016
	Balroyndroog from Koondoorbetta						215698

Mullapunnabetta from Koondoorbetta 122081.4

	Mullapunnabetta ..	15 58 38.26	+1.07			15 58 39	
	Koondoorbetta ..	143 36 55.38	—4.22			143 36 50	
	Koondhully Hill ..	20 24 30.64	+1.50			20 24 31	
84		180 00 04.28		1.65	+2.63	180 00 00	
	Koondhully from Mullapunabetta						207682.8
	Koondhully from Koondoorbetta						98366 .3

The side *Mullapunnabetta* from *Koondoorbetta* is the mean distance had from the 80th and 81st triangle.

TRIANGLES—CONTINUED.

Koondoorbetta from Koondhully Hill 96366.3

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
85	Koondoorbetta	75° 12′ 17″.37	—1″.7			75° 12′ 15″.67	
	Koondhully Hill ...	. . .				78 48 9.73	
	Balroyndroog.....	. . .				25 59 34.6	
						180 00 00	
	Balroyndroog from { Koondoorbetta						215698
		Koondhully Hill					212592.8

Koondoorbetta from Mullapunnabetta 122081.4

86	Koondoorbetta	141 10 47.25	—9.41			141 10 37.8	
	Mullapunnabetta ...	. . .				24 59 21.75	
	Balroyndroog.....	. . .				13 50 00.45	
						180 00 00 00	
	Balroyndroog from { Koondoorbetta.....						215698
		Mullapunnabetta					320094.5

Mullapunnabetta from Koondhully Hill 207682.8

87	Mullapunnabetta ...	40 58 01.62	—2.1			40 57 59.5	
	Koondhully	99 12 22.25	—6.1			99 12 16.2	
	Balroyndroog.....	. . .				39 49 44.3	
						180 00 00.00	
	Balroyndroog from { Mullapunnabetta						320075
		Koondhully Hill					212584.2

TRIANGLES—CONTINUED.

Koondhully Hill from Balroyndroog 212588.5

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
88	Koondhully Hill ...	. . .				41° 01′ 23″.8	
	Balroyndroog.....	81° 12′ 11″.66	—3.5			81 12 8.2	
	Bullamully	57 46 30.42	—2.4			57 46 28	
						180 00 00	
	Bullamully from	Koondhully Hill					248343.2
		Balroyndroog					164944.6

The side *Koondhully* hill from *Balroyndroog* is the mean distance found in the 85th and 87th triangle.

Balroyndroog from Bullamully 164944.6

89	Balroyndroog.....	. . .				28 44 41.5	
	Bullamully	50 54 19.37	—0.6			59 54 19.2	
	Ungargooda	91 21 00.75	—0.4			91 20 59.3	
						180 00 00	
	Ungargooda from	Balroyndroog					142749.3
		Bullamully					79345.5

The supplemental chord angle at *Bullamully*, between *Meejar* hill and *Ungargooda*, corrected, is subtracted from the observed angle between *Balroyndroog* and *Meejar* hill, to get the angle at *Bullamully*, between *Balroyndroog* and *Ungargooda*, as an observed one.

Bullamully from Ungargooda 79345.5

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Bullamully	. . .				16° 02′ 24″.8	
	Ungargooda	126° 11′ 27″.88	—0″.7			126 11 27 .2	
	Meejar Station	37 46 8 .19	+0 .2			37 46 08	
90						180 00 00 00	
	Meejar Station from	Bullamully					104550.2
		Ungargooda					35795.8

At *Meejar* hill, the supplemental chord angle between *Booggargooda* and *Ungargooda*, corrected as an observed one, and subtracted from the observed angle between *Booggargooda* and *Bullamully*, gives the angle between *Bullamully* and *Ungargooda* as an observed angle.

Bullamully from Meejar Station 104550.2

	Bullamully	34 37 32.87	—0.26			34 37 33.75	
	Meejar Station	49 07 53 67	—0.27			49 07 54.5	
	Kudapoonabetta ..	96 14 31.37	—0.58			96 14 31.75	
91		179 59 57.91		1.11	—3 .2	180 00 00	
	Kudapoonabetta from	Bullamully					79536
		Meejar Station					59763

Bullamully from Kudapoonabetta 79536

	Bullamully	7 46 56.42	—0.02			7 46 55.5	
	Kudapoonabetta ..	48 38 45.5	+0.17			48 38 44.7	
	Kunnoor Station ..	123 34 21.12	—0.33			123 34 19.8	
92		180 00 03.04		0.18	+2.86	180 00 00 00	
	Kunnoor Station from	Bullamully					71655.7
		Kudapoonabetta					12925.8

SECTION. III.

Southern series of triangles, commencing from *Mullapunnabetta* and *Mysoor* hill, and continued to the *Malabar* coast, terminating with the distance from *Bullamully* to *Kunnoor* station, which is also brought out by the northern series.

VI. ANGLES.

At Mysoor Hill.

Between	*And*				
Referring Flag	Mullapunnabetta	177°	77′	26″	
				25.45	
				27.89	
				28.5	
				27	26″.50
				27.5	
				25.25	
				25.5	
				25.43	
	Bettatipoor Hill ..	136	06	58.65	
				57.42	
				56.25	57.01
				55.73	
Referring flag, ...	Mullapunnabetta	177	47	26.50	
	Bettatipoor Hill ..	136	06	57.01	
Mullapunnabetta	Bettatipoor Hill ..	41	40	29.49	

At Mullapunnabetta.

Referring flag	Mysoor Hill ..	37	59	12	
				10.75	
				12.75	
				12.25	
				14	
				10.5	12.58
				12	
				12.25	
				14	
				13.25	
				14.5	
				12.75	
	Bettatipoor Hill ..	12	26	40.75	
				38.5	
				40.5	
				39.5	
				40.75	39.97
				39.25	
				40.75	
				40.5	
				40	
				39.25	

At Mullapunnabetta, continued.

Between	*And*				
Referring flag	Soobramanee	59°	05′	03″.25	
				07 .5	
				5.75	06″.
				6.75	
				4.75	
				8	
Referring flag	Mysoor Hill	37	59	12.58	
	Bettatipoor Hill ..	12	26	39.97	
Mysoor Hill	Bettatipoor Hill ..	50	25	52.55	
Referring flag	Soobramanee	59	5	06	
	Bettatipoor Hill ..	12	26	39.97	
Bettatipoor Hill	Soobramanee ...	46	38	26.03	

At Bettatipoor Hill.

Mullapunnabetta	Mysoor Hill	87	53	46	
				50.75	48.67
				49.25	
	Soobramanee	83	35	12.75	
				11.5	
				9	11.26
				11.55	
				11.5	
Soobramanee	Taddiandamole ..	51	37	49.75	
				52.25	
				54.75	52
				49.5	
				53.75	

At Taddiandamole.

Bettatipoor Hill	Soobramanee	54	50	32.25	
				30.5	
				32.75	
				32.5	31.14
				29.75	
				32	
				28.25	
Soobramanee.	Mount Dilli	124	57	23	
				23.5	
				19.25	22.1
				22.5	
				21.75	

At Mount Dilli.

Between	*And*				
Kunduddakamully	Taddiandamole	60°	21′	24″.75	
				31 .5	28″.08
				28	
	Munjuimpuddy	19	17	8 .25	
				9 .5	9.33
				10 .25	

At Kunduddakamully.

Goompay Hill	Annantapoor Hill	15	56	12	
				10 .25	10.69
				11 .5	
				9	
Baekul	Annantapoor Hill	37	41	43	
				43 .5	43.25
				43 .25	
Goompay Hill	Ballanandgooda	26	14	38 .25	
				41 .25	
				36	39.35
				40 .25	
				41	
	Taddiandamole	151	2	30	
				24	27
Munjuimpuddy	Baekul	25	44	28 .25	
				28	29.75
				33	
Goompay Hill	Annantapoor	15	56	10 .69	
Taddiandamole	Goompay Hill	151	2	27	
Annantapoor	Taddiandamole	166	58	37 .69	
	Baekul	37	41	43 .25	
Baekul	Taddiandamole	155	19	39 .06	
Annantapoor	Baekul	37	41	43 .25	
Goompay Hill	Annantapoor	15	56	10 .69	
Baekul	Goompay	53	37	53 .94	
Taddiandamole	Baekul	155	19	39 .06	
Baekul	Munjuimpuddy	25	44	29 .75	
Munjuimpuddy	Taddiandamole	129	35	9 .31	

At Baekul,

Between	And				
Munjuimpuddy	Mount Dilli	32°	37′	56″.75	
				57 .75	57″.67
				58 .5	
	Kunduddakamully	32	31	59 .75	
				63	61.37
Goompay Hill	Annantapoor	11	45	56	
				60 .75	59.58
				62	
Goompay Hill	Kunduddakamully	92	36	56 .25	
				55 .25	
				55 .25	55.58
				55 .25	
Munjuimpuddy	Mount Dilli	32	37	57 .67	
	Kunduddakamully	32	32	01 .37	
Mount Dilli	Kunduddakamully	65	09	59 .04	

At Munjuimpuddy Hill.

Kunduddakamully ..	Mount Dilli	100	26	09	
				10 .5	
				9 .25	9.31
				8 .5	

At Annantapoor Hill.

Goompay Hill	Kunduddakamully	107	11	12 .5	
				16 .25	14.67
				17 .25	

At Goompay Hill.

Ballanandgooda	Bullamully	35	09	13 .5	
				16 .25	
				14	14.94
				16	
	Annantapoor	140	37	3 .75	
				4 .75	
				6 .5	4.37
				2 .5	
	Kunnoor Station	93	6	48 .5	
				50	
				46 .25	48.25
Ballanandgooda	Bullamully	35	9	14 .94	
	Kunnoor Station	93	6	48 .25	
Bullamully	Kunnoor Station	57	57	33 .31	

At Bullamully.

Between	*And*				
Ballanandgooda	Goompay Hill ..	79° 17′ 39″			
			43 .13	} 42″.17	
			44 .37		
	Balroyndroog	80 53 15 .75			
			22		
			21 .75	} 19.19	
			17 .25		
Balroyndroog	Kunnoor Station	118 21 13 .5			
Balroyndroog	Ballanandgooda ..	80 53 19 .19			
Ballanandgooda	Kunnoor Station	160 45 27 .31			
Ballanandgooda	Goompay Hill ..	79 17 42 .17			
Goompay Hill	Kunnoor Station	81 27 45 .14			

VII. TRIANGLES.

Mullapunnabetta from Mysoor Hill 269477.5

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance feet.
	Mullapunnabetta ..	50° 25′ 52″.55	−2″.3			50° 25′ 49″.6	
	Mysoor Hill	41 40 29 .49	−2 .3			41 40 26 .6	
	Bettatipoor Hill ..	87 53 48 .67	−4 .2			87 53 43 .8	
93		180 00 10 .71		8″.8	+1″.91	180 00 00	
	Bettatipoor Hill from	Mullapunnabetta					179294.
		Mysoor Hill					207867.

Mullapunnabetta from Bettatipoor Hill 179294.4

	Mullapunnabetta ..	46 38 26.03	−1.98			46 38 24	
	Bettatipoor Hill ..	83 35 11.26	−3.23			83 35 8	
	Soobramanee	. . .				49 46 28	
94						180 00 00	
	Soobramanee from	Mullapunnabetta					233359.
		Bettatipoor Hill					170734

Bettatipoor Hill from Soobramanee 170734

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
95	Bettatipoor Hill.....	51° 37′ 52″	—1″.9			51° 37′ 50″.1	
	Soobramanee	. . .				73 31 40 .7	
	Taddiandamole	54 50 31 .14	—1 .96			54 50 29 .2	
						180 00 00 00	
	Taddiandamole from	Bettatipoor Hill					200262.3
		Soobramanee Hill.....					163730.4

Soobramanee Hill from Taddiandamole 163730.4

96	Soobramanee Hill...	. . .				49 11 36 .6	
	Taddiandamole.....	74 37 12 .54	— 2.21			74 37 10 .3	
	Kunduddakamully	56 11 14 .75	— 1.71			56 11 13 .1	
						180 00 00	
	Kunduddakamully from	Soobramanee Hill					190004.3
		Taddiandamole					149160.2

The supplemental chord angle at *Taddiandamole*, between *Kunuddakamully* and *Mount Dilli*, reduced as an observed one, is subacted from the angle *Soobramanee* hill and *Mount Dilli*, as observed at *Taddiandamole*, to give the angle *Kunddudakamully* and *oobramanee* hill. The station at *Kunduddakamully* could not be een when the angles were taken at *Taddiandamole*.

Taddiandamole from Kunduddakamully 149160.2

7	Taddiandamole.....	. . .				50 20 8 .26	
	Kunduddakamully	69 18 26 .71	—1 .61			69 18 25 .10	
	Mount Dilli	60 21 28 .08	—1 .44			60 21 26 .64	
						180 00 00	
	Mount Dilli from	Taddiandamole					160548.9
		Kunduddakamully					132113

The supplemental chord angle at *Kunduddakamully*, between *Mount Dilli* and *Munjuimpuddy*, made as an observed angle by applying the correction, and subtracted from the observed angle between *Munjuimpuddy* and *Taddiandamole*, gives the angle *Mount Dilli* and *Taddiandamole* as an observed angle.

TRIANGLES—CONTINUED.

Kunduddakamully from Mount Dilli 132113

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
98	Kunduddakamully	86° 01′ 12″.35	—1″			86° 01′ 11″.35	
	Mount Dilli	. . .				28 48 50 .21	
	Baekul	65 09 59 .04	—0 .6			65 09 58 .44	
						180 00 00 00	
	Baekul from { Kunduddakamully						70162
		Mount Dilli					145223.2

In this triangle the same supplemental chord angle between *Mount Dilli* and *Munjuimpuddy*, corrected, is added to the observed angle at *Kunduddakamully*, between *Baekul* and *Munjuimpuddy*, to get the observed angle between *Mount Dilli* and *Baekul*.

Kunduddakamully from Baekul 70162

99	Kunduddakamully	53 37 53.94	—0 .4			53 37 53.54	
	Baekul	92 36 55.58	—0 .9			92 36 54.68	
	Goompay Hill	. . .				33 45 11.78	
						180 00 00.00	
	Goompay Hill from { Kunduddakamully						126145.9
		Baekul					101681.1

TRIANGLES—CONTINUED.

Kunduddakamully from Goompay Hill 126145.9

No	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
100	Kunduddakamully	26 14′ 39″.35	—0″.6			26 14′ 38″.75	
	Goompay Hill	83 44 30 .21	—0 .7			83 44 29 .5	
	Ballanandgooda ...	. . .				70 00 51 .75	
						180 00 00	
	Ballanandgooda from	Kunduddakamully					133429.4
		Goompay Hill					59355.8

Goompay Hill from Ballanandgooda 59355.8

101	Goompay Hill	35 09 14 .94	—0 .12			35 09 14 .8	
	Ballanandgooda ...	. . .				65 33 02 .7	
	Bullamully	79 17 42 .71	—0 .18			79 17 42 .5	
						180 00 00 00	
	Bullamully from	Goompay Hill					54990.2
		Ballanandgooda					34781

Goompay Hill from Bullamully 54990.2

102	Goompay Hill	57 57 33 .31	—0 .28			57 57 33	
	Bullamully	81 27 45 .14	—0 .39			81 27 44 .75	
	Kunnoor Station...	. . .				40 34 42 .25	
						180 00 00 .00	
	Kunnoor Station from	Goompay Hill					83600.1
		Bullamully					71659.4

The same side *Bullámully* from *Kunnoor* hill brought out down from the northern series is 71655.7 feet: therefore the mean will be 71657.55 feet. Hence, as the side *Bullamully* from *Kunnoor* hill brought down from the northern series, is the mean, so is the side *Meejar* hill and *Kuddapoonabetta*, brought down from the northern series, to 59764.6 feet, as derived from the mean of both series.

TRIANGLES—CONTINUED.

Meejar Hill from Kudapoonabetta 59764.6

No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Meejar Hill.....	37° 55′ 19″.91	—0″.12			37° 55′ 19″.8	
	Kudapoonabetta ...	58 24 56 .62	—0 .17			58 24 56 .5	
	Kooliebogooda	. . .				83 39 43 .7	
103						180 00 00 .00	
	Kooliebogooda from {	Meejar Hill					51224.7
		Kudapoonabetta.....					36956.5

SECONDARY TRIANGLES.

Kudapoonabetta from Kooliebogooda 36956.5

No.	TRIANGLES.	Obsd. Angles.	Distances from the intersected Objects in Feet.	
	Kudapoonabetta ..	86 11 32	Eedgah Station	17110.2
	Kooliebogooda ..	25 28 59		39680.7
	Eedgah Station ..	68 19 19		

Eedgah Station from Kooliebogooda 39680.7

	Eedgah Station ..	66 09 43	Station on the Beach	10073
	Kooliebogooda ...	14 30 24		36782.3
	Station on the Beach	99 19 53		

Bullamully from Goompay Hill 54990.2

	Bullamully	76 37 33	Mangalore	91763.7
	Goompay Hill	69 16 59		95446.7
	Mangalore	34 05 28		

Bullamully from Kunnoor Station 71659.4

	Bullamully	4 50 12	Mangalore	91761.4
	Kunnoor Station ..	158 37 57		21234.9
	Mangalore	16 31 51		

Mount Dilli from Kunduddakamully 132113

	Mount Dilli	132 10 39	Cannanore	87563.4
	Kunduddakamully	18 46 24		201632.7
	Cannanore	29 02 57		

Taddiandamole from Mount Dilli 160548.9

	Taddiandamole ..	31 59 09	Cannanore	157072
	Mount Dilli	71 49 11		87574.2
	Cannanore	76 11 40		

Taddiandamole from Cannanore 157072

	Taddiandamole ..	16 51 05	*Station in Redoubt* ..	*171686.4*
	Cannanore	98 16 45		*50294.4*
	Station in Redoubt	64 52 10		

Taddiandamole from Station in Redoubt 171686.4

	Taddiandamole ..	29 26	Tellicherry	*175846.6*
	Station in Redoubt	132 52 33		6143.1
	Tellicherry	46 38 01		

SECTION IV.

Latitude of Dodagoontah *Station, with the position of its Meridian.*

Dodagoontah station is selected as the point of departure in preference to the observatory at *Madras*, as it is nearly in the middle of the *Peninsula*, and its meridian is intended to be carried down to *Cape Comorin*. It has already been extended below the latitude of 11°, and the series of triangles from which it is deduced, being to form the foundation of all the branches which may hereafter be carried to each coast, I have considered it as the properest meridian to which all latitudes and relative longitudes should be referred.

8. Zenith distances of stars observed at *Dodagoontah*, with their corrections for precession, nutation, aberration, and the semi-annual solar equation, back to the beginning of the year 1805, for determining the latitude of that station.

OBSERVATIONS AT DODAGOONTAH.

α SERPENTIS,

NEAREST POINT ON THE LIMB 5° 55′ S.

1805. Month.	Face.	Obsd. Zenith Distances.	Corrections.	Correct Zenith Distances.	Thermometers. Upper.	Lower.
July 10.	E.	5° 57′ 04″.49	7″.14	5° 56′ 57″.35	70°	70°
12.	W.	5 56 59 .38	6 .93	5 56 52 .45	73	73
15.	E.	5 57 07 .74	6 .64	5 57 01 .10	79 .5	79
18.	W.	5 56 54 .73	6 .36	5 56 48 .37	78	78
19.	E.	5 57 9 .64	6 .26	5 57 3 .38	76	76
24.	W.	5 56 59 .24	5 .82	5 56 53 .43	79 .5	79
26.	E.	5 57 05 .74	5 .66	5 57 00 .08	75 .5	75
27.	W.	5 56 52 .13	5 .58	5 56 46 .55	79	79
29.	E.	5 56 59 .41	5 .43	5 56 53 .98	72	72
31.	W.	5 56 52 .73	5 .28	5 56 47 .45	75 .5	76
1806, June 19.	E.	5 56 16 .76	19 .08	5 56 57 .68	73	73
20.	W.	5 56 10 .88	18 .95	5 56 51 .93	72	72
22.	W.	5 56 07 .38	18 .70	5 56 48 .68	76	76
23.	E.	5 56 13 .21	18 .57	5 56 54 .64	73	73
				Mean....	75 .1	75 .1

α. HERCULIS.

NEAREST POINT ON THE LIMB 1° 35′ N.

1805. Month.	Face.	Obsd. Zenith Distance.	Correction.	Correct Zenith Distance.	Thermometers. Upper.	Lower.
			+			
July 12.	E.	1° 37′ 19″.83	0″.39	1° 37′ 20″.22	68°	69°
			—			
16.	E.	1 37 20 .53	0 .27	1 37 20 .26	72 .5	73
19.	W.	1 37 37 .14	0 .73	1 37 36 .41	75	76
28.	W.	1 37 35 .88	2 .03	1 37 33 .85	74	74
29.	E.	1 37 22 .55	2 .16	1 37 20 .39	76	76
31.	E.	1 37 23 .16	2 .42	1 37 20 .74	69	68 .5
August 2.	W.	1 37 35 .26	2 .66	1 37 32 .60	77 .5	77 .5
7.	E.	1 37 24 .76	3 .26	1 37 21 .50	71 .5	72
8.	W.	1 37 36 .89	3 .37	1 37 33 .52	71 .5	71
9.	E.	1 37 25 .56	3 .48	1 37 22 .08	71	71
10.	W.	1 37 36 .79	3 .58	1 37 33 .21	73	73
12.	E.	1 37 24 .76	3 .78	1 37 20 .98	74	74
14.	W.	1 37 37 .87	3 .98	1 37 33 .89	74	74
16.	E.	1 37 27 .06	4 .17	1 37 22 .89	71 .5	71
				Mean	73	73 .5

α OPHIUCHI.

NEAREST POINT ON THE LIMB 0° 15′ S.

			+			
July 12.	E.	0 17 14 .49	0 .29	0 17 14 .78	69	70
19.	W.	0 17 03 .10	0 .46	0 17 03 .36	71	72
15.	E.	0 17 13 .54	0 .77	0 17 14 .31	71	71 .5
19.	E.	0 17 11 .60	1 .43	0 17 13 .03	75	75
22.	W.	0 16 59 .10	1 .89	0 17 00 .99	74	74
28.	E.	0 17 10 .74	2 .76	0 17 13 .50	74	74
29.	W.	0 16 57 .63	2 .89	0 17 00 .52	76 .5	76
30.	E.	0 17 09 .24	3 .02	0 17 12 .26	77	77
31.	W.	0 16 58 .93	3 .15	0 17 02 .08	69 .5	69
August 7.	E.	0 17 08 .51	4 .02	0 17 12 .53	72	72
8.	W.	0 16 57 .24	4 .14	0 17 01 .38	71	71
9.	E.	0 17 09 .08	4 .25	0 17 13 .33	71	71
10.	W.	0 16 57 .76	4 .36	0 17 02 .12	73	73
12.	E.	0 17 07 .54	4 .58	0 17 12 .12	73	73
14.	W.	0 16 55 .13	4 .78	0 16 59 .91	74	74
17.	E.	0 17 8 .74	5 .07	0 17 13 .81	72 .5	72 .5
				Mean	72 .7	72 .8

AQUILÆ.

NEAREST POINT ON THE LIMB 2° 50′ S.

1805. Month.	Face.	Observed Zenith Distance.	Correction.	Correct Zenith Distance.	Thermometer. Upper.	Lower.
			+			
July 12.	E.	2° 50′ 55″.13	7″.96	2° 51′ 03″.09	67°.5	68°
13.	W.	2 50 42 .80	8 .17	2 50 50 .97	70	70
15.	E.	2 50 51 .50	8 .57	2 51 0 .07	69	70
16.	W.	2 50 42 .50	8 .77	2 50 51 .27	70	71
19.	E.	2 50 55 .50	9 .36	2 51 4 .86	74	73
22.	W.	2 50 37 .40	9 .94	2 50 47 .34	73	72.5
31.	E.	2 50 50 .40	11 .58	2 51 1 .98	69	69
August 7.	W.	2 50 39 .40	12 .76	2 50 52 .16	70	70
8.	E.	2 50 46 .13	12 .92	2 50 59 .05	69. 5	70
9.	W.	2 50 40 .75	13 .08	2 50 53 .83	70	70
10.	E.	2 50 49 .50	13 .24	2 51 2 .74	70	70
12.	W.	2 50 38 .33	13 .55	2 50 51 .88	73	72
13.	E.	2 50 48 .63	13 .70	2 51 2 .33	70	70
17.	W.	2 50 38 .30	14 .27	2 50 52 .57	72	72
20.	E.	2 50 49 .00	14 .70	2 51 3 .70	70	70
30.	W.	2 50 38 .20	15 .91	2 50 54 .11	72	72
				Mean····	70 .6	70 .6

ATAIR.

NEAREST POINT ON THE LIMB 4 35 S.

			+			
July 12.	E.	4 37 55 .62	8 .49	4 38 04 .11	67 .5	68
13.	W.	4 37 42 .39	8 .68	4 37 51 .07	70	70
15.	E.	4 37 56 .47	9 .07	4 38 05 .54	69	70
16.	W.	4 37 43 .39	9 .26	4 37 52 .65	70	71
19.	E.	4 37 56 .14	9 .83	4 38 5 .97	73	72 .5
22.	W.	4 37 42 .01	10 .41	4 37 52 .42	73	73
29.	E.	4 37 53 .89	11 .65	4 38 5 .54	74 .5	74 .5
30.	W.	4 37 40 .39	11 .80	4 37 52 .21	76	76
31.	E.	4 37 51 .84	11 .99	4 38 3 .83	69	69
August 7.	W.	4 37 40 .96	13 .13	4 37 54 .09	71	71
8.	E.	4 37 48 .37	13 .28	4 38 01 .66	69 .5	70
9.	W.	4 37 41 .89	13 .44	4 37 55 .33	70	70
10.	E.	4 37 48 .34	13 .59	4 38 1 .93	70	70
12.	W.	4 37 39 .76	13 .89	4 37 53 .65	73	72
13.	E.	4 37 48 .17	14 .04	4 38 2 .21	70	70
17.	W.	4 37 41 .86	14 .60	4 37 56 .45	72	72
20.	E.	4 37 49 .37	14 .99	4 38 4 .36	70	70
30.	W.	4 37 37 .89	16 .16	4 37 54 .05	72	72
				Mean····	71 .1	71 .2

β AQUILÆ.

NEAREST POINT ON THE LIMB 7° 5′ S.

1806. Month.	Face.	Observed Zenith Distance.	Correction.	Correct Zenith Distance.	Thermometer. Upper.	Lower.
			+			
August 25.	E.	7° 03′ 38″.62	26″.27	7° 4′ 4″.89	76°	76°
26.	W.	7 03 29.87	26.37	7 3 56.24	72	73
27.	E.	7 03 40.87	26.47	7 4 7.34	71	71
				Mean....	73	73.3

ARCTURUS.

NEAREST POINT ON THE LIMB 7 10 N.

1805.			+			
July 11.	W.	7 12 12.43	7.50	7 12 19.93	74.5	74.5
13.	E.	7 11 58.13	7.36	7 12 65.49	74	74.5
16.	W.	7 12 11.36	7.16	7 12 18.52	77	77
22.	E.	7 11 59.98	6.85	7 12 6.83	80	79.5
26.	W.	7 12 13.26	6.60	7 12 19.95	84	83
				Mean....	77.9	77.7

MARKAB.

NEAREST POINT ON THE LIMB 1 10 N.

			−			
August 13.	E.	1 9 50.40	22.11	1 9 28.28	68	68
14.	W.	1 10 5.30	22.32	1 9 42.98	69	70
17.	E.	1 9 55.00	22.93	1 9 32.07	69	70
21.	W.	1 10 5.30	23.72	1 9 41.58	68	69
23.	W.	1 10 06.00	24.09	1 9 41.91	72	72
28.	W.	1 10 4.40	24.98	1 9 39.42	68	69
29.	E.	1 10 00.00	25.18	1 9 34.82	72	72
30.	W.	1 10 6.50	25.35	1 9 41.15	71	71
				Mean....	69.6	70.1

γ PEGASI.

NEAREST POINT ON THE LIMB 1 5 N

			−			
August 22.	E.	1 6 21.26	24.04	1 5 57.22	68	69
23.	W.	1 6 31.63	24.42	1 6 07.21	70	71
27.	E.	1 6 23.50	24.93	1 5 58.56	68	69
30.	W.	1 6 35.13	25.44	1 6 09.69	68	70
				Mean....	68.5	69.8

Means of the Zenith Distances taken on the right and left Arcs, corrected for refraction, equation of the sectorial tube, and the mean runs of the Micrometer.

Previous to this arrangement of the zenith distances it may be proper to say a few words on the different corrections here mentioned.

The refraction is had from the tables of mean refraction, and no notice taken of the barometer or thermometer, or of the heights of the stations above the level of the sea, considering it doubtful what corrections to apply until observations are made, and tables of refraction constructed, for this climate, and for different elevations.

The corrections for the micrometer were determined by taking the runs between every dot on the arc when the mean temperature was 74°, it having been discovered upon more minute attention, that one degree on the limb was more than 3600 divisions marked seconds on the micrometer; and the average of all the results gave 3604. Therefore one minute counted by that scale required a deduction of 0″.066 to give its true measure from the nearest dot. In all these observations two thermometers were used, one opposite the upper axis, the other opposite the arc, and the experiments for ascertaining the runs were made when the thermometers stood at the same degree.

This error in the scale of the micrometer has doubtless arisen in a great measure from the unequal expansion of the sectorial tube and the frame which carries it, whereby the point of the screw does not coincide with the centre of the steel plate against which it presses, and in consequence causes a greater equation than what would arise simply from the expansion of

the arc while the point rested on the centre of the plate. Exclusive of the above correction, I have endeavoured to make some allowance for the variation of temperature from 74°, but I have found it too trifling to be noticed.

The correction for the sectorial tube, is a small equation which arises when the temperature above is different from that below; on which account the expansion and contraction of the tube are not in the same ratio with those of the arc. This irregularity, like the last, is in general very inconsiderable, though the correction for it is taken into account.

ZENITH DISTANCES at Dodagoontah, *arranged and finally corrected.*

α SERPENTIS.

1805. Month.	Left Arc.	1805. Month.	Right Arc.	Mean.
July 10.	5° 56′ 57″.35	July 12.	5° 56′ 52″.45	Mean ..... 5° 56′ 53″.82
15.	5 57 1.10	18.	5 56 48.37	Refraction, &c... + 5.82
19.	5 57 3.38	24.	5 56 53.42	
26.	5 57 0.08	27.	5 56 46.55	Zenith Distances 5 56 59.64
29.	5 56 53.98	31.	5 56 47.45	
1806. June 19.	5 57 57.68	1806. June 20.	5 56 51.93	
23.	5 56 54.64	22.	5 56 48.68	
Mean....	5 56 57.67	Mean....	5 56 49.97	

α HERCULIS.

1805. Month.	Left Arc.	1805. Month.	Left Arc.	Mean.	
July 19.	1° 37′ 36″.41	July 12.	1° 37′ 20″.22	Mean	1° 37′ 27″.52
28.	1 37 33 .85	16.	1 37 20 .26	Refraction, &c.	+ 1 .47
August 2.	1 37 32 .60	29.	1 37 20 .39		
8.	1 37 33 .52	31.	1 37 20 .74	Zenith Distance	1 37 28 .99
10.	1 37 33 .21	August 7.	1 37 21 .50		
14.	1 37 33 .89	9.	1 37 22 .08		
		12.	1 37 20 .98		
		16.	1 37 22 .89		
Mean	1 37 33 .91	Mean	1 37 21 .13		

ε OPHIUCHI.

July 12.	0 17 14 .78	July 13.	0 17 03 .56	Mean	0 17 7 .40
15.	0 17 14 .31	22.	0 17 0 .99	Refraction, &c.	+ 0 .31
19.	0 17 13 .03	29.	0 17 0 .52		
28.	0 17 13 .5	31.	0 17 2 .08	Zenith Distance	0 17 7 .71
30.	0 17 12 .26	August 8.	0 17 1 .38		
August 7.	0 17 12 .53	10.	0 17 2 .12		
9.	0 17 13 .33	14.	0 16 59 .91		
12.	0 17 12 .12				
17.	0 17 13 .81				
Mean	0 17 13 .30	Mean	0 17 1 .51		

AQUILÆ.

July 12.	2 51 3 .09	July 13.	2 50 50 .97	Mean	2 50 57 .0
15.	2 51 0 .07	16.	2 50 51 .27	Refraction, &c.	+ 2 .78
19.	2 51 4 .86	22.	2 50 47 .34		
31.	2 51 1 .98	August 7.	2 50 52 .16	Zenith Distance	2 50 59 .78
August 8.	2 50 59 .05	9.	2 50 53 .83		
10.	2 51 2 .74	12.	2 50 51 .88		
13.	2 51 2 .33	17.	2 50 52 .57		
20.	2 51 3 .70	30.	2 50 54 .11		
Mean	2 51 2 .23	Mean	2 50 51 .77		

ATAIR.

1805. Month.	Left Arc.	1805. Month.	Right Arc.	Mean.
July 12.	4° 38′ 4″.11	July 13.	4° 37′ 51″.07	Mean ..... 4° 37′ 58″.73
15.	4 38 5 .54	16.	4 37 52 .65	Refraction, &c. + 4 .61
19.	4 38 5 .97	22.	4 37 52 .42	
29.	4 38 5 .54	30.	4 37 52 .21	Zenith Distance 4 38 3 .34
31.	4 38 3 .83	August 7.	4 37 54 .09	
August 8.	4 38 1 .66	9.	4 37 55 .33	
10.	4 38 1 .93	12.	4 37 53 .65	
13.	4 38 2 .21	17.	4 37 56 .45	
20.	4 38 4 .36	30.	4 37 54 .05	
Mean....	4 38 3 .91	Mean....	4 37 53 .55	

β AQUILÆ.

1806.		1806.		
August 25.	7 4 4 .89	August 26.	7 3 56 .24	Mean ..... 7 4 1 .18
27.	7 4 7 .34			Refraction, &c.. + 7 .18
Mean....	7 4 6 .11	Mean....	7 3 56 .24	Zenith Distance 7 4 8 .36

MARKAB.

1805.				
August 14.	1 9 42 .98	August 13.	1 9 28 .28	Mean ..... 1 9 36 .5
21.	1 9 41 .58	17.	1 9 32 .07	Refraction, &c. + 1 .1
23.	1 9 41 .91	29.	1 9 34 .82	
28.	1 9 39 .42			Zenith Distance 1 9 37 .76
30.	1 9 41 .15			
Mean....	1 9 41 .41	Mean....	1 9 31 .73	

PEGASI.

August 23.	1 6 7 .21	August 22.	1 5 57 .22	Mean ..... 1 6 3 .1
30.	1 6 9 .69	27.	1 5 58 .56	Refraction, &c. + 1 .0
Mean....	1 6 8 .45	Mean....	1 5 57 .89	Zenith Distance 1 6 4 .2

ARCTURUS.

1805.				
July 11.	7° 12′ 19″.93	July 13.	7° 12′ 5′.49	Mean ..... 7° 12′ 12″.8
16.	7 12 18 .52	22.	7 12 6 .83	Refraction, &c.·· + 7 .0
26.	7 12 19 .95			Zenith Distance·· 7 12 19 .8
Mean····	7 12 19 .47	Mean····	7 12 6 .16	

The Latitude of Dodagoontah *Station, deduced from the foregoing Stars.*

STARS.	From the beginning of 1805.		Latitude.
	Mean Declination.	Correct Z. Distance.	
Arcturus	20° 12′ 19″.23 N.	7° 12′ 19″.84 N.	12° 59′ 59″.39 N.
α Serpentis	7 3 0 .3	5 56 59 .64 S.	59 .97
α Herculis	14 37 30 .96	1 37 28 .99 N.	61 .97
α Ophiuchi	12 42 50 .91	0 17 7 .71 S.	58 .62
ν Aquilæ	10 8 58 .34	2 50 59 .78 S.	58 .12
Atair	8 21 53 .53	4 38 3 .34 S.	56 .37
β Aquilæ	5 55 52 .71	7 4 8 .73 S.	61 .44
Markab	14 9 40 .09	1 9 37 .76 N.	62 .33
ν Pegasi	14 6 4 .7	1 6 4 .23 N.	60 .47
		Mean····	12 59 59 .91

This is one of the stations alluded to in the note p. 291, where the plummet is supposed to have been drawn to the northward; in which case the latitude here deduced must be something in defect

9. Pole-star observations at *Dodagoontah* Station, reduced for determining the position of the Meridian.

1805. Month.	Apparent Polar Distance.	Latitude.	Azimuths.	Angle between the Pole-star and Lamp.	Angle between the N. Pole and Lamp.
July 19.	1° 43′ 58″.20	12° 59′ 59″.91	1° 46′ 42″.16	1° 31′ 53″.00	0° 14′ 49″.1
22.	1 43 57 .57		1 46 41 .70	1 31 56 .25	0 14 45 .4
August 8.	1 43 54 .07		1 46 38 .10	1 31 51 .25	0 14 46 .8
12.	1 43 53 .05		1 46 37 .06	1 31 48 .50	0 14 48 .5
17.	1 43 51 .70		1 46 35 .67	1 31 46 .25	0 14 49 .4
18.	1 43 51 .44		1 46 35 .40	1 31 47 .50	0 14 47 .9
19.	1 43 51 .16		1 46 35 .10	1 31 45 .50	0 14 49 .6
23.	1 43 50 .04		1 46 33 .97	1 31 45 .50	0 14 48 .4
26.	1 43 49 .09		1 46 32 .99	1 31 43 .50	0 14 49 .4
27.	1 43 48 .82		1 46 32 .73	1 31 44 .50	0 14 48 .2
Angle between the N. Pole and Referring Lamp N. easterly					0 14 48 .3
Angle between the Referring Flag and Savendroog					104 4 29 .6
Angle between the N. Pole and Savendroog Station					103 49 41 .3

SECTION V.

Length of the Perpendicular Degree, and the Latitudes and relative Longitudes of all the great Stations of Observation, and other places on the two Coasts.

10. The measurement of an arc perpendicular to the meridian, and the length of a degree in latitude 12° 55′ 10″.

For determining the latitude of *Savendroog*, we have at *Dodagoontah* station, the bearing of *Savendroog* station with the meridian 76° 10′ 18″.63 S. W^ly^ and the distance between these two stations = 121933.2 feet. These will give the westing of *Savendroog* = 118399.2 feet, and the southing of the point on the meridian of *Dodagoontah*, where the perpendicular let fall from *Savendroog*, will cut the said meridian = 29143.3 feet, which is equal to an arc of 4′ 48″.88, and this deducted from the latitude of *Dodagoontah* gives 12° 55′ 11″.03. The westing will give an arc perpendicular to the meridian 19′ 29″.04, with which, and the co-latitude of the above point, the latitude of *Savendroog* will be had 12° 55′ 10″.24.

NOTE. *The meridional degree is taken at* 60498 *fathoms, being the computed degree for Latitude* 12° 55′ 10″, *as deduced from the measured degrees for latitude* 11° 59′ 55″ *and latitude* 52° 02′ 30″.

Pole-Star Observations at Savendroog *Station, reduced for determining the position of the Meridian.*

1804 Month.	Apparent Polar Distance.	Latitude	Azimuths.	Angle between the Pole-star and Referring Lamp.	Angle between the N. Pole and Referring Lamp.
March 6.	1° 43′ 57″.66	12° 55′ 10″.24	1° 46′ 39″.72	2° 28′ 56″.75	0° 42′ 17″.03
7.	1 43 57 .94		1 46 40	2 28 57 .25	0 42 17 .25
8.	1 43 58 .23		1 46 40 .3	2 28 54	0 42 13 .7
9.	1 43 58 .49		1 46 40 .57	2 28 53 .5	0 42 12 .93
10.	1 43 58 .77		1 46 40 .86	2 28 57 .75	0 42 16 .89
13.	1 43 59 .62		1 46 41 .73	2 28 56	0 42 14 .27
14.	1 43 59 .91		1 46 42 .03	2 28 58 .75	0 42 16 .72
15.	1 44 00 .19		1 46 42 .31	2 28 58 .75	0 42 16 .44
16.	1 44 00 .49		1 46 42 .62	2 28 58 .25	0 42 15 .63
21.	1 44 00 .96		1 46 43 .11	2 29 01 .12	0 42 18 .02

Angle between the North Pole and Referring Lamp	0 42 15 .89 E.
Angle between the Referring Lamp and Mullapunnabetta	90 40 01 .16
Angle between the North Pole and Mullapunnabetta	89 57 45 .27 W.
Angle between the North Pole and Referring Lamp	0 42 15 .89 E.
Angle between the Referring Lamp and Yerracondah	92 04 49 .45
Angle between the North Pole and Yerracondah	92 47 05 .34 E.

Pole-Star Observations at Mullapunnabetta *Station, reduced for determining the position of the Meridian.*

Nov. 7.	1 43 42 .37	12 55 05 .6	1 46 24	170 43 15 .25	172 29 39 .25
8.	1 43 42 .03		1 46 23 .65	170 43 18	172 29 41 .65
10.	1 43 41 .36		1 46 22 .96	170 43 18 .37	172 29 41 .33
12.	1 43 40 .71		1 46 22 .29	170 43 19 .13	172 29 41 .42
13.	1 43 40 .39		1 46 21 .96	170 43 19 .38	172 29 41 .34
14.	1 43 40 .07		1 46 21 .64	170 43 20	172 29 41 .64
15.	1 43 39 .75		1 46 21 .31	170 43 19 .62	172 29 40 .93
16.	1 43 39 .42		1 46 20 .97	170 43 20	172 29 40 .97
17.	1 43 39 .11		1 46 20 .65	170 43 19 .25	172 29 39 .9
19.	1 43 38 .49		1 46 20 .02	170 43 19 .25	172 29 39 .27
1805 Dec. 12.	1 43 13 .24		1 45 54 .11	170 43 49	172 29 43 .11
13.	1 43 13 .04		1 45 53 .9	170 43 48 .25	172 29 42 .15
14.	1 43 12 .85		1 45 53 .71	170 43 48 .12	172 29 41 .83
15.	1 43 12 .67		1 45 53 .52	170 43 47 .75	172 29 41 .27
16.	1 43 12 .49		1 45 53 .34	170 43 49 .25	172 29 42 .59
20.	1 43 11 .84		1 45 52 .67	170 43 48 .2	172 29 40 .87
24.	1 43 11 .29		1 45 52 .11	170 43 48 .5	172 29 40 .61
25.	1 43 11 .16		1 45 51 .99	170 43 50 .35	172 29 42 .34

Angle between the North Pole and Referring Lamp	172 29 41 .25 W.
Angle between the Referring Lamp and Savendroog	97 41 34 .36
Angle between the North Pole and Savendroog	89 48 44 .39 E.

Pole-Star Observations at Yerracondah *Station, reduced for determining the position of the Meridian.*

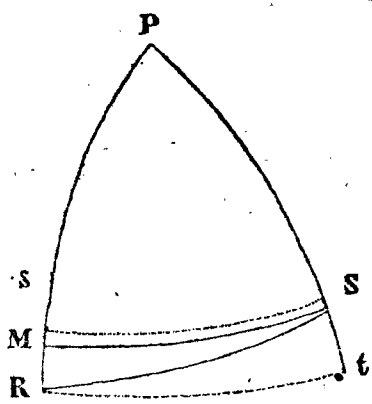
1804 Month.	Apparent Polar Distance.	Latitude	Azimuths.	Angle between the Pole-star and Referring Lamp.	Angle between the N. Pole and Referring Lamp.
Jan. 15.	1° 43′ 49″.81	12° 52′ 14″.36	1° 46′ 30″.42	9° 3′ 6″.5	7° 16′ 36″.08
16.	1 43 49 .82		1 46 30 .43	9 3 3 .85	7 16 33 .42
19.	1 43 49 .9		1 46 30 .51	9 3 2	7 16 31 .49
20.	1 43 49 .92		1 46 30 .53	9 3 3 .5	7 16 32 .97
21.	1 43 49 .95		1 46 30 .56	9 3 5 .5	7 16 34 .94
22.	1 43 50 .02		1 46 30 .63	9 3 3 .75	7 16 33 .12
23.	1 43 50 .07		1 46 30 .68	9 3 4	7 16 33 .32
26.	1 43 50 .26		1 46 30 .87	9 3 5	7 16 34 .12
27.	1 43 50 .35		1 46 30 .96	9 3 4 .25	7 16 33 .3
Angle between the North Pole and Referring Lamp					7 16 33 .64 E.
Angle between the Referring Lamp and Savendroog					94 16 14 .97
Angle between the North Pole and Savendroog					86 59 41 .33 W.

As the latitudes were necessary for computing the azimuths, they were first had spherically for the two stations at *Mullapunnabetta* and *Yerracondah*, by taking the westing and easting from the meridian of *Savendroog*, and converting them into parts of great circles. These came so near the truth, that on recomputing the azimuths by the latitudes finally brought out, there was no sensible difference.

It may be remarked here, that no double azimuths have been taken. The pole-star being so low, and the vapour in the atmosphere so great in general, that I have never, except in two instances, been able to discern it while the sun was above the horizon.

The Arc comprehended by the Meridians of Savendroog *and* Mullapunnabetta.

Let S and M be the stations at *Savendroog* and *Mullapunnabetta*, and P the pole, and SR be a great circle perpendicular to the meridian SP at S, and also Ss a parallel of latitude at the same point S. Then we have given the observed angles PSM and PMS, the distance SM, and the latitude of S, to find the latitude of M.



In the spheriodical triangle MSR, the angle MSR $= 90° - \angle$ PSM $= 0° 2' 14''.73$, and the angle SMR $= 180° - \angle$ PMS $= 90° 11' 15''.61$, and these being corrected for the chords, we shall have the angle MSR $= 0\ 2'\ 14''.73$, and the angle RMS $= 90°\ 11'\ 15''.58$ for the chord angles. Whence the angle SRM $= 180°$ — sums of the above angles, or $89°\ 46'\ 29''.69$, and with these and the side or chord MS, the distance given by the triangles, we shall find the chord of the perpendicular arc SR $= 357644.6$ and the side MR $= 233.64$ feet, and this last may be taken either as a chord or arc indifferently.

Now the spherical excess of the triangle SMR is $0''.02$, and the sum of the corrections for the angles MSR and SMR being $- 0''.03$, the difference between this sum and the said spherical excess is $+ 0''.01$ the correction for the angle MSR, which applied to the chord angle, we get the angle MRS or PRS as an observed angle, equal $89°\ 46'\ 29''.68$.

Continue the meridian PS to t, and draw Rt parallel to Ss. Then, since the small angle SRt, or its equal RSs, is half the difference between the angles

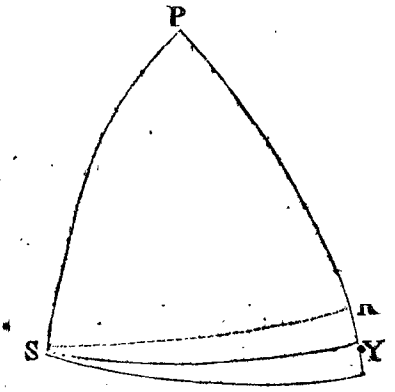
PRS and PSR, that is half the difference between 90° and the angle PRS as an observed one, we have $\frac{90°-(89°\ 46'\ 29''.68)}{2} = 6'\ 45''.16$, the angle RSs. Hence in triangle RSs considered as a plane one, there are given the angles at R and S and the side SR, as formerly found, from which will be had Ss and Rs equal 357642.6 feet and 702.51 feet respectively; as also Ms (= RS — RM) equal 468.87 feet, which measures the distance between the parallels of S and M. But 468.87 feet as an arc on the meridian is 4″.65, which substracted from the latitude of S gives 12° 55′ 05″.59 for the latitude of M, the station at *Mullapunnabetta*.

Hence in the triangle SPM there are given the sides SP and MP (the co-latitudes of S and M) and the angles PSM, PMS, the observed angles at S and M. Then, as the tangent 77° 4′ 52″.085 : tangent 0° 0′ 2″.325 :: tangent 89° 53′ 14″.83 : tangent 0° 4′ 31″.26; which last applied to the half sum of the observed angles, we get 89° 53′ 14″.83 + 4′ 31″.26 = 89° 57′ 46″.09 and 89° 53′ 14″.83 — 4′ 31″.26 = 89° 48′ 43″.57 for the angles at *Savendroog* and *Mullapunnabetta* such as they would have been observed on a sphere. Then proceeding by spherical computation with the sides PS, PM, and the angles PSM and PMS given, the angle SPM, or difference of longitude of S and M will be had equal 1° 00′ 24″.44, from which and the side SP in the right angled spherical triangle PSR the side SR or arc SR perpendicular to the meridian PS at the point S will be had equal 0° 58′ 52″.71.

Now the chord of the arc SR is had = 357644.6 feet, half of which will be as the sine of half the arc SR, and from which is got the radius of the same arc, and thence the length of the arc SR is found to be 357650.8 feet. Then as 58′ 52″.71 : 357650.8 :: 60′ : 364463.3 feet, or 60743.8 fathoms, for the measure of the degree at right angles to the meridian of *Savendroog*.

The Arc comprehended by the Meridians of Savendroog *and* Yerracondah.

Let S and Y be the stations at *Savendroog* and *Yerracondah* respectively, and let the latitude of Y be deduced from that of S, the angles PSY and PYS having been observed. Let SR be a great circle perpendicular to the meridian SP at S, and St′ a parallel of latitude at the same point S. Here the angle RSY = PSY − 90° = 2° 47′ 5″.34, and the angle RYS being the observed angle at Y = 86° 59′ 41″.33. These angles being corrected for the chords, the supplement to their sum will be the chord angle at R in the spheriodical triangle SRY. Let the chords of SR and YR be computed with the corrected angles, then if the angle at R be augmented by the difference between the sum of the corrections for the other two angles and the spherical excess, it will become 90° 13′ 14″.74, or such as would have been observed at R. Hence 180° − ∠ SRY = 89° 46′ 45″.26 the angle t′RS, and by considering the triangle St′R as a plane one, the small angle t′SR is equal $\frac{90-\angle t'RS}{2}$ = 0° 6′ 37″.37. With this angle, and the angle t′RS, and the distance SR, as found above, the small side t′R is had = 675.86 feet, which added to RY = 17067.72 gives t′Y = 17743.58 feet, the distance between the parallels of S and Y. But 17743.58 feet is equal to an arc on the meridian of 2′ 55″.98, and this deducted from the latitude of *Savendroog*, gives 12° 52′ 14″.26 for the latitude of *Yerracondah*.



Hence, with the co-latitudes of *Savendroog* and

Yerracondah, and the observed angles PSY and PYS, we have, the tangent of half the sum of the first, to the tangent of half their difference, as the tangent of half the sum of the second, to tangent of 2° 54′ 25″.92, their half difference: from which we get the greater angle at S = 92° 47′ 49″.25, and the less angle at Y = 86° 58′ 57″.41 thus corrected for computing spherically: and with these and co-latitudes, proceeding as before, the angle SPY will be had = 0° 59′ 14″.83, and the perpendicular arc = 0° 57′ 44″.86. But the chord subtended by this arc is 350824 feet, and therefore the arc itself 350827.7 feet. Then, as 57.74767 : 350827.7 feet :: 60′ : 364510.8 feet, or 60751.8 fathoms, for the length of the degree at right angles to the meridian of *Savendroog*, as deduced from the distance between *Savendroog* and *Yerracondah*; and the length of the perpendicular degree deduced from the distance between *Savendroog* and *Mullapunnabetta* being 60743.8 fathoms, the mean of these two, or 60747.8 fathoms, may be considered as nearly the true measure for latitude 12° 55′ 10″.

If the ratio of the earth's diameters be taken as 1 : 1.003125, and the meridional degree in latitude 11° 59′ 55″ be 60494 fathoms; then, by using these data, the *computed* meridional degree on the ellipsoid in latitude 12° 55′ 10″ will be 60498 fathoms; with which and the above ratio, the *computed* degree at right angles to the meridian in the same latitude will be had 60858 fathoms, which exceeds the measured one by 110 fathoms nearly; so that we may infer from this, either that the earth is not an ellipsoid, or that this measurement is incorrect.

The more we investigate this interesting subject, and the more ample means we employ to ascertain the exact figure of the earth, the more seems to be wanting to satisfy our research; and if we feel reluctant in giving up the elliptic hypothesis, because it is consonant to that harmony and order with which we are familiar, the discord which these results indicate, afford by no means sufficient evidence

to induce us to abandon that theory. The great nicety in making the pole-star observations is well understood, and it will be made more manifest in the case before us by increasing or diminishing the half sum of the angles with the meridians, reciprocally taken at *Mullapunnabetta* and *Savendroog*, by one second only, when it will appear that a difference of nearly *one hundred and fifty fathoms*, in the perpendicular degree, will be occasioned thereby.

I am fully aware of the delicacy necessary in taking these angles, and I am also aware that some eminent mathematicians consider the method of determining the difference of longitude by the convergency of meridians as insufficient in these low latitudes; yet I am of opinion that by repeating these observations whenever stations can be found, either in the same, or in different latitudes, the truth may ultimately be very nearly attained. I at one time had determined on increasing the number of observations at *Mullapunnabetta*, *Savendroog* and *Yerracondah*, on my return to the eastward; but when I was at *Mullapunnabetta* a second time, and had increased the number of pole-star observations there to eighteen. and had also taken several other angles between *Savendroog* and the referring lamp, and after all finding that the angle between the meridian and *Savendroog* was altered only $\frac{1}{25}$ part of a second, I did not think it necessary to go to the other stations, particularly as the observations there had been made under the most favorable circumstances. It is, notwithstanding, desirable that many more measurements of the kind should be made, and that other methods should be tried for getting the length of a degree of longitude, particularly that of carrying a good time-keeper between two meridians at a known distance, a method which has been strongly represented to me by the Astronomer Royal, and which I mean to put in practice in the course of my future operations. I had also devised another method by the instantaneous extinction of large blue lights fired at *Savendroog*, the times of which were to be noticed by observers at

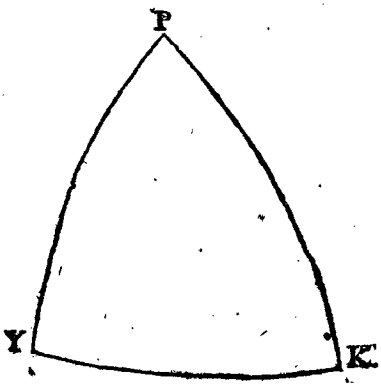
Mullapunnabetta and *Yerracondah*, the distance of whose meridians on a parallel of latitude passing through *Savendroog* being nearly 135 miles. The experiments were attempted, but the weather was so dull that the lights could scarcely be distinguished. There is besides a difficulty in fixing the precise moment of extinction; and even in the most favorable state of the atmosphere, when the lights may be distinctly seen with the naked eye at near seventy miles distance, to come within half a second of the truth, would be as near as the eye is capable of, which is equal to $7''\frac{1}{2}$ in an angle at the pole: but the mean of a great number of successful results might come very near the truth.

Since the triangles in this survey have been carried direct from the observatory at *Madras* to *Mangalore*, by which easy means are offered to determine the length of a parallel of latitude subtended by two meridians nearly five degrees and a half distant from each other, it may be further suggested, whether a long course of corresponding observations made at *Madras* observatory and at another place on the *Malabar* coast, by the eclipses of the satellites, occultations of stars by the moon, &c. might not afford another eligible method for determining the length of a degree of longitude.

In short, the difficulty of obtaining this desideratum, and the important advantages to geography and physical science which must accrue therefrom, are such powerful incitements to a zealous prosecution of the inquiry, that I may venture an assurance of leaving nothing undone, which may come within the compass of my abilities, to give every possible satisfaction on the subject; and if my endeavours to throw some light on the path to future discovery be successful, I shall close the period of my labours with the grateful reflection, that, while employed in conducting a work of national utility, I shall have added my humble mite to the stock of general science.

11. Latitude and longitude of *Kylasghur*.

Let Y be *Yerracondah*, K *Kylasghur*, and P the pole. Then in the spherical triangle PYK there are given YP = 77° 7′ 45″.74, the co-latitude of *Yerracondah*, YK = 46′ 33′.51, the oblique arc as computed on the spheroid; and the angle PYK = 92° 13′ 46″.11, as observed at *Yerracondah*, to find PK, the co-latitude of *Kylasghur* which by spherical computation will be had equal 77° 9′ 38″.7, and therefore the latitude equal 12° 50′ 21″.3, with which latitude the azimuths being reduced, the pole-star observations at *Kylasghur* will stand as follow:



1803. Month.	Apparent Polar Distance.	Latitude	Azimuths.	Angle between the Pole-star and Referring Lamp.	Angle between the North Pole and Referring Lamp.
Dec. 3.	1° 43′ 54″.74	12° 50′ 21″.3	1° 46′ 35″,41	3° 28′ 57″	1° 42′ 21″.59
7.	1 43 53 .82		1 46 34 .51	3 28 52 .4	1 42 17 .89
12.	1 43 52 .84		1 46 33 .56	3 28 55 .25	1 42 21 .69
13.	1 43 52 .5		1 46 33 .46	3 28 53 .5	1 42 20 .04
Angle between the North Pole and Referring Lamp					1 42 20 .30 E.
Angle between the Referring Lamp and Yerracondah					89 17 57 .607
Angle between the North Pole and Yerracondah					87 35 37 .307 W

If the same angle be brought out by using the co-latitudes of *Yerracondah* and *Kylasghur*, and the observed angle at *Yerracondah*, between the N. pole and *Kylasghur*, it will be 87° 35′ 37″, very nearly the same as was observed.

Then again, as the sine of either of the co-latitudes, is to the sine of the opposite angle, so is the sine of the oblique arc KY, to sine of the angle KPY, equal

47′ 42″.98, the difference of longitude; to which add the difference of longitude between *Yerracondah* and *Savendroog*, equal 59′ 14″.83, we have 1° 46′ 57″.81 for the longitude of *Kylasghur*, east from the meridian of *Savendroog*.

12. Latitude and Longitude of *Karnatighur*, and the position of its meridian, deduced from that of *Kylasghur*.

The southing of *Karnatighur* from *Kylasghur* is 95144 feet, equal to an arc of 15′ 43″.61 on the meridian of *Kylasghur*; and the easting is 1093.83 feet, equal to 10″.8 of a great circle at right angles to the said meridian, and passing through *Karnatighur*. From the nearness of the meridians of these two stations, the former arc may be considered as the difference of latitude, and therefore being subtracted from the latitude of *Kylasghur*, we have 12° 34′ 37″.69 for the latitude of *Karnatighur*. Hence, by using the co-latitude 77° 25′ 22″.31, and the small perpendicular arc 10″.8, we shall have the difference of longitude 11″.06, and the convergency of the meridian of *Karnatighur* towards that of *Kylasghur* 2″.46 nearly. The former of which being applied to the longitude of *Kylasghur*, will give 1° 47′ 8″.87 for the longitude of *Karnatighur* from the meridian of *Savendroog*, E.

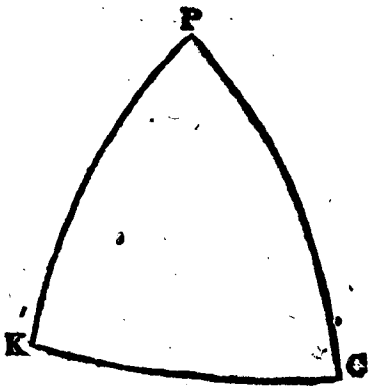
Now the observed angle at *Kylasghur*, between the north pole and *Karnatighur*, was 179° 20′ 28″.83, whose supplement is 0° 39′ 31″.17, which will therefore be the angle at *Karnatighur*, between the north pole and the parallel to the meridian of *Kylasghur*; from which subtract the convergency, we get 0° 39′ 28″.71 for the angle between the north pole and *Kylasghur*, westerly; and this subtracted from 93° 28′ 42″.22, the angle formerly taken at *Karnatighur*, between *Kylasghur* and *Carangooly*, gives 92° 49′ 13″.51 for the angle between the north pole and *Carangooly*.

The same angle taken at *Karnatighur*, in 1803,

was 92° 49′ 15″.93, but as there is reason to doubt the accuracy of that angle, from reasons already given, to which may perhaps be added the want of experience, I shall reject it and adopt the one now brought out for determining

13. The latitude and longitude of *Carangooly* Hill.

The length of the arc comprehended by the stations at *Karnatighur* and *Carangooly*, as determined by the triangles in 1803, was 291196.9 feet, which, as an oblique arc, according to the present scales, will be equal 47′ 56″.21.



Let P be the pole, K *Karnatighur*, and C *Carangooly;* and therefore KC the oblique arc = 47′ 56″.21. Then if * the observed angle at *Carangooly*, be made use of, (which must be accurate enough for this purpose) we have sine PK : sine ∠ PCK :: sine KC : sine angle KPC equal 49′ 2″.9. the difference of longitude. Hence 1° 47′ 8″.87 + 49′ 2″.9 = 2° 36′ 11″.77, the longitude of *Carangooly* from the meridian of *Savendroog*.

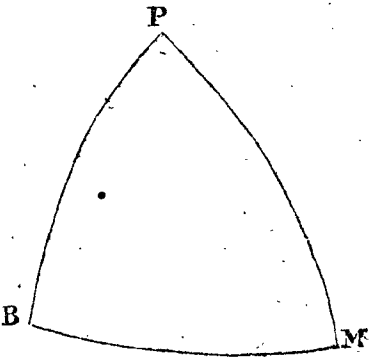
And as sine angle PCK : sine KP :: sine ∠ PKC : PC = 77° 27′ 42″.2, the co-latitude of *Carangooly*, whose complement 12° 32′ 11″.8 is therefore the latitude.

14. Latitude and longitude of *Balroyndroog*, with the position of its meridian.

As the atmosphere was so extremely dull when

* As determined in 1803, equal 87° 00′ 07″.54.

the pole-star observations were made at *Balroyndroog*, the angle between its meridian and the station at *Mullapunnabetta*, could not be taken, we must therefore depend altogether on computations made with the oblique arc, the latitude of *Mullapunnabetta*, and the angle at that station with the N. pole, and the station at *Balroyndroog*.



Let M and B be the stations at *Mullapunnabetta* and *Balroyndroog* respectively, and let P be the pole, then having given PM equal 77° 4′ 54″.41, BM the oblique arc equal 52′42″.12, and the observed angle PMB equal 75°52′54″.95, we shall obtain by spherical computation the side BP = 76° 52′ 08″.4 the co-latitude, and the angle BPM 52′ 28″.94 the difference of longitude, which add to the longitude of *Savendroog* from *Carangooly* hill, and *Mullapunnabetta* from *Savendroog*, there will be 4° 29′ 05″.15, the longitude of *Balroyndroog* from *Carangooly* hill.

Taking the latitude thus found for computing the azimuths, the pole-star observations at *Balroyndroog* will stand as follow:

1805 Month.	Apparent Polar Distance.	Latitude	Azimuths.	Angle between the Pole-star and Referring Lamp.	Angle between the N. Pole and Referring Lamp.
Feb. 20.	1° 43′ 34″.15	13° 07′ 51″.6	1° 46′ 21″.05	56° 46′ 43″.50	55° 00′ 22″.45
23.	1 43 34 .82		1 46 21 .73	56 46 43 .75	55 00 22 .02
24.	1 43 35 .06		1 46 21 .98	56 46 43 .25	55 00 21 .27
25.	1 43 35 .33		1 46 22 .25	56 46 43	55 00 20 .75
26.	1 43 35 .57		1 46 22 .50	56 46 44 .5	55 00 22
27.	1 43 35 .80		1 46 22 .74	56 46 44 .25	55 00 21 .51
28.	1 43 36 .03		1 46 22 .97	56 46 43 .44	55 00 20 .44
Angle between the North Pole and Referring Lamp					55 00 21 .49 N.

15. Reduction of some principal places on the two coasts in latitude and longitude.

TABLE 1. *Containing the angles with the Meridian of* Balroyndroog *and its parallels, and the distances of certain places on the* Malabar *coast from that Meridian, and from its perpendicular.*

STATIONS AT	Places computed.	Bearings referred to the Meridian of Balroyndroog.	Dists.	Distances on the		Distances from Balroyndroog on the	
				Perpendic.	Meridian.	Perpendic.	Meridian.
			feet.	feet.	feet.	feet.	feet.
Balroyndroog	Bullamully	44° 57′ 26″ S. W.	164945	116546 W.	116722 S.	116546 W.	116722 S.
Bullamully	Mangalore	78 13 58 N. W.	91762	89834 W.	18714 N.	206380 W.	98008 N.
	Goompay Hill	25 08 29 S. W.	54990	23363 W.	49780 S.	139909 W.	166502 S.
Goompay	Baekul	2 12 35 S. E.	101681	3920 E.	101606 S.	135989 E.	268107 S.
	Kunduddakamully	35 57 46 S. E.	126146	74080 E.	102102 S.	65829 W.	268603 S.
Kunduddakamully	Mount Dilli	4 23 08 S. W.	132113	10102 W.	131726 S.	75931 W.	400329 S.
	Taddiandamole ..	64 55 19 S. E.	149160	135101 E.	63223 S.	69272 E.	331826 S.
Taddiandamole ..	Cannanore	32 45 22 S. W.	157072	84986 W.	132094 S.	15714 W	463920 S.
	Tellicherry	14 25 51 S. W.	175847	43773 W.	170311 S.	25499 W.	502137 S.

TABLE 2. *Containing the angles, with the Meridian of* Carangooly *and its parallels, and the distances of certain places on the* Coromandel *coast from that Meridian, and from its perpendicular.*

STATIONS AT	Places computed.	Bearings referred to the Meridian of Carangooly.	Dists.	Distances on the		Distances from Carangooly on the	
				Perpendic.	Meridian.	Perpendic.	Meridian.
			feet.	feet.	feet.	feet.	feet.
Carangooly Hill ..	Mullapode	17° 47′ 01″ N. E.	144405	44105 E.	137505 N.	44105 E.	137505 N.
	Permacoil	24 14 20 S. W.	134240	55111 W.	122406 S.	55111 W.	122406 S.
Mullapode Hill	Fort St. George ..	58 27 57 N. E.	113759	96960 E.	59497 N.	141065 E.	197002 N.
	Mowbrey's House ..	64 16 15 N. E.	92027	82903 E.	39951 N.	127008 E.	177456 N.
Mowbrey's House ..	Madras Observatory	0 00 18 N. E.	15914	1 E.	15914 N.	127009 E.	193370 N.
Permacoil Hill	Mooratan Station ..	12 20 28 S. E.	83352	17815 E.	81426 S.	37296 W.	203832 S.
Mooratan Station ..	Pondicherry	47 38 45 S. E.	23207	17150 E.	15635 S.	20146 W.	219467 S.
	Trivandeporum ..	17 43 21 S. W.	87363	26594 W.	83217 S.	63890 W.	287049 S.
Trivandeporum ..	Cuddalore	70 23 02 S. E.	24644	23214 E	8273 S.	40676 W.	295322 S.

By table the first, *Mangalore* flag-staff is west from the meridian of *Balroyndroog* 206380 feet, and south 98008 feet from the station; and these converted into arcs according to the above scales, will give 33′ 58″ and 16′ 12″ respectively, and the latter arc added to the co-latitude of *Balroyndroog* (equal 76° 52′ 8″.4) gives 77° 08′ 20″ for the co-latitude of the point where a perpendicular from *Mangalore* will cut the meridian of *Balroyndroog* at right angles. Then as Rad. : Cos. 77° 8′ 20″ :: Cos. 33′ 58″ (the perpendicular) : 77° 08′ 22″, the co-latitude of *Mangalore*.

And again, as Tan. 33′ 58″ : Sin. 77° 08′ 20″ :: Rad. : Cot. 34′ 50″, the difference of longitude between *Balroyndroog* and the flag-staff at *Mangalore*.

By proceeding in the same manner with the other places on that coast, we shall have their latitudes, and their longitudes from the meridian of *Balroyndroog* as follow:

Names of Places.	Latitudes.	Longitudes from Balroyndroog.
Mangalore Flag-staff	12° 51′ 38″	0° 34′ 50″ W.
Baekul Fort S. E. Cavalier	12 23 32	0 22 55 W.
Mount Dilli Station	12 01 41	0 12 47 W.
Cannanore Flag-staff	11 51 11	0 02 38 W.
Tellicherry Flag-staff	11 44 52	0 04 17 E.

By table 2d, the observatory at *Madras* is 127009 feet east, and 193370 feet north from the station at *Carangooly*, which converted into arcs give 20′ 54″.45 and 31′ 57″.78 respectively; which being applied to the meridian and its perpendicular, passing through the observatory, and computing spherically, as in the last case, we shall obtain 13° 04′ 8″.7 for the latitude of the observatory, and 21′ 27″.81 for its longitude east from the meridian of *Carangooly*. And by pursuing the same method of calculation, we shall have certain places on the *Coromandel* coast referred to the meridian of *Carangooly* as follow;

Names of Places.	Latitudes.	Longitudes from Carangooly.
Madras Observatory	13° 04′ 08″.7	0° 21′ 27″.81 E.
Fort St. George Church Steeple	13 04 45	0 23 44 E.
Pondicherry Flag-staff	11 55 56	0 03 20 W.
Cuddalore Flag-staff	11 43 23	0 06 48 W.

The difference of longitude between the meridians of *Carangool* and *Balroyndroog*, by Art. 14, is 4° 29′ 15″.15, to which add th longitudes of the different places from the respective meridians, a heretofore deduced, we shall have the difference of longitude c those places which lie nearly in the same parallels of latitude a follows:

Difference of longitude between the observatory and.

Mangalore, - - - - - - - - -	5° 25′ 23
Church in *Fort St. George* and ditto,	5 27 45
Pondicherry and *Cannanore*, - -	4 28 13
Cuddalore and *Tellicherry* - -	4 18

Here it may be proper to notice that in the requisite tables, th difference of longitude between *Fort St. George* and *Mangalore* i 5° 27′ 25″, within 20″ of what is here given; but the difference o longitude between *Cuddalore* and *Tellicherry* is 4° 8′ 42″, differin no less than 9′ 18″ from the triangular measurement.

APPENDIX.

TABLE of LATITUDES and LONGITUDES of some of the principal Places, as deduced from the Operations in general.

NOTE. In the abbreviations H signifies hill; P pagoda; and Dg. droog. In all pagodas the tower is meant, unless otherwise specified; or, if they are stations, the platform is generally the place where the instrument stood, and is mostly marked by a small mill-stone. All places having the asterisk (*) annexed to them are the stations of the large theodolite, and are distinguished either by platforms with large stones in the middle, having small circles inserted thereon; or if on a rock, the circle is inserted on the rock: and in both cases the centre of the circle denotes the point over which the plummet was suspended.

Names of Places.	Latitude.	Longitude from Madras Obser.	Longitude from Greenwich.
ALLAMBADDY Fort	12° 8′ 35″ N.	2° 30′ 25″ W.	77° 46′ 5″ E.
* Allasoor H.	13 9 42	2 38 0	77 38 30
* Allicoor H.	13 16 18	0 31 34	79 44 56
ALLUMPARVA Fort	12 16 12	0 14 5	80 2 25
AMARATOOR Fort P.	12 55 23	3 18 55	76 57 35
AMBOIGE Dg.	13 23 37	2 14 48	78 1 42
AMBOOR Dg.	12 49 12	1 32 8	78 44 22
ANCHITTY Dg.	12 35 23	2 21 45	77 54 15
* ANKISGHERRY Dg.	12 40 27	2 10 3	78 5 27
ANNICUL Fort P.	12 42 33	2 33 31	77 42 59
ARCOT FORT (Nabob's house)	12 54 14	0 54 57	79 21 33
ARNEE (Monument in the Fort)	12 40 19	0 57 58	79 18 32
Atcherawauk H. and P.	12 24 14	0 26 23	79 50 7
AUVULCONDAH	13 7 40	1 1 54	79 14 36
* BAEKUL Fort	12 23 32	5 13 28	75 3 2
* Bailippee H.	13 39 7	2 58 28	77 18 2
BAILOOR Fort P.	13 9 47	4 23 42	75 52 48
B. BALLAPOOR Eedgah	13 18 24	2 43 13	77 26 17
* BALROYN Dg.	13 7 51.6	4 50 33	75 25 57
BANGALORE Palace	12 57 34	2 40 45	77 35 45
BARCELORE Peak	13 51 23	5 23 28	74 53 2
Bellagola (Great statue)	12 51 15	3 46 13	76 30 17
BELLOOR FORT P.	12 58 58	3 31 26	76 45 4
BENKIPOOR Fort	13 50 42	4 33 26	75 43 4

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from Madras Observ.	Longitude from Greenwich.
* Bettatipoor H. and P.	12° 27′ 14″ N.	4° 8′ 23″ W.	76° 8′ 7″ E.
Bhavany P.	11 25 45	2 34 19	77 42 11
* Bodeemulla	13 12 41	1 10 55	79 5 35
Bodeelimrauz Dg.	12 26 17	2 7 13	78 9 17
Bolcondah Dg.	12 37 15	2 8 14	78 8 16
* Bomanelly H. and P.	13 16 18	3 37 1	76 39 29
* Bonnairgottah	12 48 43	2 40 41	77 35 49
* Booggargooda	13 3 4	5 15 16	75 1 14
* Bullamully	12 48 33	5 10 14	75 6 16
* Bullanaugooda	12 45 12	5 5 28	75 11 2
* Bundhully Dg.	12 12 16	2 55 2	77 21 28
Busmungy Dg.	13 44 24	3 12 57	77 3 33
Byran Dg.	13 5 41	3 4 47	77 11 43
CANANORE FORT, Flag Staff	11 51 11	4 53 1	75 23 29
* Carangooly H.	12 32 12	0 21 28	79 55 2
Caverypoorum Fort	11 54 43	2 29 36	77 46 54
Cauverypauk Fort	12 54 15	0 47 18	79 29 12
Chalamcottah Large Tree	13 26 50	2 7 36	78 8 54
Chargul Dg.	12 53 18	1 36 19	78 40 11
Chayloor Fort	13 28 37	3 21 1	76 55 29
* Cheetkul H.	13 19 16	2 56 52	77 17 38
Chendragherry Fort	12 27 53	5 15 13	75 1 17
* Chencaud	11 56 56	0 39 45	79 36 45
Chenroyn Dg.	13 35 49	3 2 43	77 13 45
Chinglepet Fort Flag Staff	12 41 59	0 16 12	80 0 18
Chini Dg.	12 42 18	1 42 19	78 34 11
Chineroyputtun	12 54 9	3 51 53	76 28 37
Chittepet H.	12 27 58	0 51 37	79 24 53
Chittepet Mosque	12 27 55	0 53 58	79 22 32
CHITTLE Dg. Flag Staff	14 13 4	3 51 34	76 24 56
CHITTOOR Fort	13 13 5	1 9 27	79 7 3
Choreegherry Dg.	13 55 17	3 8 56	77 7 32
Chungamah	12 18 4	1 27 24	78 49 6
Colar Fort P.	13 8 20	2 6 49	78 49 41
Conjevaram Great Pagoda	12 50 47	0 32 52	79 43 38
* Coonawaucum H.	12 50 56	0 18 51	79 57 37
* Coonum H.	12 5 20	0 34 12	79 42 18
Covelong Church	12 47 36	0 0 5 E.	80 16 35
CUDDALORE Flag Staff	11 43 23	0 28 16 W.	79 48 14
Curpah Fort	13 14 39	3 24 11	76 52 19
* Daesauneegooda	13 15 46	4 6 34	76 9 56
Darampory Fort	12 3 48	2 5 5	78 11 25
Denkanicottah Fort	12 31 53	2 27 53	77 48 37
Deonelly Fort	13 14 59	2 32 38	77 43 52
* Deorabetta	12 37 32	2 37 36	77 38 54
* Devaroy Dg.	13 22 25	3 2 28	77 14 2
* Dodagoontah	12 59 59.9	2 37 40	77 38 50
Durrea Bahader Ghur	13 20 13	5 34 14	74 42 16

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from Madras Obser.	Longitude from Greenwich.
ENNORE Tree	13° 14′ 59″ N.	0° 4′ 42″ E.	80° 21′ 12″ E.
ERODE Fort S. E. Cavalier	11 20 27	2 31 26 W.	77 45 4
French Rock's Pillar	12 30 31	3 33 24	76 43 6
GINGEE Dg.	12 15 18	0 51 19	79 25 11
GOPAUL Dg.	12 29 52	2 57 31	77 18 59
GOODEEBUNDAH Dg.	13 40 34	2 33 3	77 43 27
* Goompay H.	12 40 19	5 14 10	75 2 20
GOONICUL Fort	13 1 33	3 13 34	77 2 56
Gooriattum P.	12 55 52	1 24 42	78 51 48
GUNGANGHERRY Dg.	12 25 54	1 57 47	78 18 43
GURRADAN Dg.	13 28 54	4 0 47	76 15 43
* Hallagamulla P.	11 0 52	2 48 54	77 27 36
* Hanandamulla	12 55 57	0 51 14	79 15 16
HASSUN	13 0 13	4 9 42	76 6 48
HOOLY Dg.	12 49 13	3 13 5	77 3 25
* Hunnabetta	13 6 1	4 31 12	75 45 18
HUNNAMUN Dg.	13 55 41	4 19 38	75 56 52
HURROOR FORT	12 2 50	1 46 1	78 30 29
HYDERGHUR	13 42 6	5 15 27	75 1 3
JAINKUL Dg.	13 54 35	3 59 50	76 16 40
JEMALABAD Flag Staff	13 1 34	4 57 46	75 18 44
KARKUL FORT	13 12 34	5 15 36	75 0 54
* KARNATIGHUR	12 34 38	1 10 31	79 5 59
Kasragooda Fort	12 29 36	5 16 3	75 0 27
KAUMUN Dg.	14 14 59	2 58 44	77 17 46
Kaup Battery	13 13 24	5 31 21	74 45 9
KISTNAGHERRY	12 32 15	2 2 9	78 14 21
KOADICONDAH Dg.	13 49 49	2 28 24	77 48 6
KONGOONDY Dg.	12 46 3	1 49 0	78 27 30
KOOMLAH FORT	12 36 5	5 19 6	74 57 24
KOONDAPOOR Fort	13 38 10	5 34 11	74 42 19
* Koondhully H.	12 39 33	4 29 21	75 47 9
* Koondoorbetta	12 51 16	4 18 19	75 58 11
KOPA Dg.	13 32 3	4 56 5	75 20 25
KOWLAE Dg.	13 43 5	5 8 27	75 8 3
* Kuddapoonabetta	12 55 37	5 22 29	74 54 1
KUL Dg.	13 38 47	4 20 56	75 55 32
* Kulkolah	13 25 14	2 39 9	77 37 21
* Kumbetarenemulla	11 35 31	2 58 57	77 17 33
* Kunduddakamully	12 23 28	5 1 39	77 14 51
* Kunnoor H.	12 51 55	1 2 59	79 13 39
KYLASGHUR	12 50 21.3	1 10 42	79 5 48
MACKLY Dg.	13 25 58	2 45 4	77 31 26
MADRANTICUM P.	12 30 36	0 43 12	79 33 18
MADRAS (Observatory)	13 4 8.7	0 00 00	80 16 30
MAILLACHERRY Dg.	12 16 6	0 52 32	79 23 58
MAILCOTTAH H. and P.	12 39 57	3 36 9	76 40 21
MAHARAJH Dg.	12 53 34	4 19 40	75 56 50

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from Madras Obser.	Longitude from Greenwich.
* Mullapode H.	12° 54′ 56″ N.	0° 14′ 1″ W.	80° 2′ 29′ E.
MALLAVILLY FORT (S. W. Cavalier)	12 23 0	3 11 54	77 4 36
MANGALORE Fort (Flag Staff)	12 51 38	5 25 23	75 51 7
* Mannoor	13 0 39	0 18 51	79 57 39
Marakerra (Tree)	12 26 20	4 30 46	75 45 15
* Maumdoor H.	12 44 44	0 34 59	79 41 31
MEDAGASHIE Dg. Mosque	13 49 54	3 3 34	77 12 56
* Meejar Hill	13 3 21	5 19 21	74 57 9
MINCHICUL Dg	13 27 47	3 3 16	77 13 14
MOODABIDDERRY P.	13 4 24	5 15 38	75 0 52
MOODUWADDIE Dg.	12 40 57	2 48 38	77 27 52
MOOLKY Fort	13 5 12	5 28 13	79 48 17
MONJERABAD	12 55 4	4 29 51	75 46 39
* Moratan	11 58 30	0 27 42	79 48 48
* Mount Dilli	12 1 41	5 3 20	75 13 10
MOUNT St. Thomas' (Flag Staff)	13 0 20	0 3 18	80 13 12
MUDDUKSERAH Dg.	13 56 41	2 59 0	77 17 30
MUDGHERRY D.	13 39 7	3 3 11	77 13 19
Muglee H. (Stone)	13 9 59	1 25 22	78 51 8
MULLANAIG P.	12 44 43	1 39 2	78 37 28
* Mullapunnabetta	12 55 6	3 58 4	76 18 26
MULWAGGLE Dg.	13 10 14	1 52 6	78 23 24
* Mungot H.	13 0 31	0 8 57	80 7 33
Muntapum N. of Bangalore	13 0 45	2 40 13	77 36 17
* Mylum H.	12 7 54	0 37 55	79 38 55
MYSOOR FORT (High Cavalier)	12 18 21	3 35 59	76 40 31
* Mysoor H.	12 16 40.5	3 35 2	76 41 28
Naggerry Nose	13 22 50	0 39 13	79 37 17
NAGMUNGATUM Fort	12 49 11	3 30 1	77 46 29
NARRAIN Dg.	12 42 45	3 40 7	76 36 23
NARRICUT Dg.	13 7 54	1 3 58	79 12 32
* Naudkaunee	10 55 57	2 38 10	77 38 20
NEDDIGUL Dg. (Muntapum)	14 9 31	3 10 21	77 6 9
NEGIGUL Dg. (Pillar)	13 14 50	3 2 17	77 14 13
NUGGUR (BEDNORE) Flag Staff	13 49 10	5 13 27	75 3 3
* NUNDY Dg.	13 22 12.5	2 34 1	77 22 29
NUNJENGODE P.	12 7 9	3 33 43	76 42 47
ODEA Dg.	12 36 55	2 19 20	77 57 10
OOSSCOTTA (Eedgah)	13 4 21	2 28 13	77 48 17
OOSSOOR H. and P.	12 43 33	2 24 49	77 51 41
OOTRAMALLOOR Fort	12 36 55	0 29 32	79 46 58
OOTUR Dg.	12 57 40	3 7 47	77 8 43
OYMUNGGUL Fort	14 5 44	3 43 15	76 33 15
PATTICONDAH P.	12 54 45	1 18 46	78 57 44
* Patticondah	13 10 25	1 36 23	78 40 7
* Paudree	13 19 41.3	0 34 8	79 42 22
* PAUGHUR	14 6 19	2 58 34	77 17 56
* *Paulamulla*	11 41 39	2 31 0	77 45 30

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from Madras Obser.	Longitude from Greenwich.
PEDNAIG Dg.	12° 57′ 33″ N.	1° 38′ 4″ W.	78° 38′ 26″
PERCONDAH Tree	14 4 13	2 40 2	77 36 28
PENNAGRA Fort	12 7 45	2 20 58	77 55 32
* PERMACOIL H.	12 11 58	0 30 45	79 45 45
* Perambauk H.	12 53 7	0 3 9	80 13 21
* Pilloor H.	13 13 59	6 53 50	79 22 40
PONDICHERRY Flag Staff	11 55 56	0 24 48	79 51 42
* Ponnassmulla	12 8 47	2 36 27	77 40 3
* Poonauk H.	13 10 2	0 39 8	79 37 22
POONAMALLEE Flag Staff	13 2 37	0 8 16	80 8 14
PULLICATE Flag Staff	13 25 9	0 4 13 E.	80 20 43
RAMGHERRY Dg.	13 56 53	4 8 19 W.	76 8 11
RAVALNELLORE Dg.	11 58 0	1 19 32	78 56 58
RIOJEES CHOULTRY	12 52 25	0 29 54	79 46 36
* Runganelly H. and P.	13 39 55	3 25 23	76 51 7
* Rungaswamy H. and P.	13 2 3	3 16 56	76 59 34
RUNGYAN Dg.	13 55 21	4 19 31	75 56 59
RUNGYAN Dg.	13 54 14	4 9 30	76 7 0
RYACOTTAH Flag Staff	12 31 16	2 12 54	78 3 36
* RYMAN Dg.	13 21 17	2 14 37	78 1 53
SADRAS Flag Staff	12 31 34	0 4 59	80 11 31
ST. GEORGE (FT.) Church steeple	13 4 45	0 2 22 E.	80 18 52
SANKERRY Dg. Bungaloe on the top	11 28 49	2 23 40 W.	77 52 50
SATTIAGUL Fort	12 14 38	3 6 32	76 9 58
SATTIMUNGALUM Fort Bungaloe	11 30 17	3 0 15	77 16 15
SAUTGHUR Building on the top	12 57 49	1 30 28	78 46 2
* SAVEN Dg. Staⁿ. near the Muntapum	12 55 10 24	2 57 40	77 18 50
SERAH FORT Flag Staff	13 44 39	3 20 29	76 56 1
SERINGAPATAM P.	12 25 29	3 34 38	76 41 52
SEVEN Ps. P. on the rock	12 36 56	0 3 21	80 13 9
Shâ Dg.	14 9 46	2 44 58	77 31 32
SHEEMOGA Fort	13 55 33	4 40 25	75 36 5
* Shennimulla	11 9 27	2 39 58	77 36 32
SHEVAGUNGA G. P.	13 10 9	3 1 51	77 14 39
SHEVERAM H. Choultry	12 46 17	0 22 45	79 53 45
SHOLANGHUR G. P.	13 5 20	0 49 49	79 26 41
SOOBRAMANEE H. old P. (G. Mountain)	12 39 44	4 34 11	75 42 19
SOOLAGHERRY Dg.	12 40 8	2 13 57	78 2 33
SOOLOOPGHERRY Dg.	12 4 34	1 12 59	79 3 31
STREE PERMATOOR P.	12 58 7	0 17 57	79 58 33
* Taddiandamole	12 13 3	4 38 52	75 37 38
* Tandray	13 8 5	0 10 46	80 5 44
TATTACUTTOO Dg.	12 24 5	1 39 42	78 36 48
TOLLACHERRY Fort (Flag Staff)	11 44 52	4 46 16	75 30 14
* Telloor H.	12 31 51	0 40 5	79 36 25
TENGRICOTTA Fort	12 0 44	1 51 14	78 25 16
* Thittamulla	11 20 49	2 53 49	77 22 41
TIAGAR	11 44 14	1 10 28	79 6 2

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from Madras Obser.	Longitude from Greenwich.
TIMMAPOOR Dg.	12° 24′ 14″ N.	1° 2′ 24″ W.	79 14′ 8″ E.
Tirchunkode H. and P.	11 22 29	2 20 59	77 55 31
TIREKEARA Fort	13 42 34	4 26 20	75 50 10
Terikitchcoonum H. and P.	12 36 37	0 11 17	80 5 13
* Tirtapully H.	13 2 25	2 21 55	77 54 35
TRINOMALLEE H.	12 14 30	1 11 32	79 4 58
——— P.	12 13 53	1 10 46	79 5 44
TTIPPASOOR Fort N. Face	13 8 36	0 22 22	79 54 8
* Trivandeporum	11 44 45	0 32 10	79 44 20
TRIVILLOOR P.	13 8 37	0 20 19	79 56 11
Undar Ghaut (Peak)	13 20 32	5 10 45	75 5 45
UNGANAMULLA Dg.	12 38 4	1 58 49	78 17 41
* Ungargooda	13 1 13	5 13 42	75 2 48
* Urrumbaucum H.	13 12 5	0 23 53	79 52 37
VAIPOOR Dg.	12 8 44	1 25 24	78 51 6
VANDIWASH H. and P.	12 32 7	0 38 49	79 37 41
——— FORT	12 30 32	0 38 47	79 37 43
VANIAMBADDY	12 40 19	1 38 28	78 37 2
Veer Rajenderpett H. and P.	12 12 31	4 26 47	75 49 43
VELLORE Dg.	12 54 59	1 5 45	79 10 45
VELLORE FORT G. P.	12 55 20	1 7 15	79 9 15
* Vellengcaud	12 20 41	0 18 47	79 57 13
VENKETTYGHERRY Fort	13 0 2	1 45 50	78 30 40
VERABUD'R Dg.	12 23 20	2 8 41	78 7 49
VILLANOOR P.	11 54 44	0 29 35	79 46 55
WALLAJABAD Commands. Officer's ho.	12 47 56	0 25 25	79 51 5
WALLAJAPETT Mosque	12 55 13	0 54 8	79 22 22
WHOLY HONOOR FORT	13 59 7	4 34 22	75 42 8
* Womootoor H.	12 4 55	3 22 1	76 54 29
* Woorachmulla	11 28 37	2 33 43	77 42 47
* Wooritty H.	12 22 41	0 34 16	79 42 14
Woos Dg.	12 18 30	5 09 48	75 06 42
Wurrelcondah H. and P.	13 38 12	2 28 23	75 48 07
Wuss Dg.	13 47 23	3 58	76 18 30
Yaelmatoor H.	11 12 06	2 30 12	77 46 18
YAENIKUL Dg.	14 00 58	3 27 16	76 49 14
Yamagherry H. and P.	12 48 46	3 12 19	77 4 11
YEGGOONDAH Dg.	13 16 41	2 59 46	77 16 44
Yerracondah (Mysoor)	12 52 14 .26	1 58 25	78 18 05
Yerracondah (Ceded Districts)	13 54 59	2 36 05	77 40 25

ELEVATIONS *and* DEPRESSIONS, *contained Arcs, terrestrial Refractions, together with the heights above the level of sea, of all the principal Stations.*

1. Stations lying in the nearest direction between the two seas, commencing with the S. end of the base near *St. Thomas's Mount*, whose perpendicular height above the low water mark is 18.7 feet.

Stations at	Stations Observed.	Apparent E^n & D^n	Cont. Arcs.	Refract.	Elevations above the Sea. Stations.	Heights.
						feet.
S. end of the Base	Perambauk Hill	1° 46′ 25″ E.	1′ 21″	1/18	Perumbauk	272.9
Perumbauk	S. end of the Base	1 47 25 D.				
Perumbauk	Mullapode	0 06 18 E.	10 41	1/16	Mullapode	481.2
Mullapode	Perumbauk	0 15 40 D.				
Mullapode	Carangooly Hill	0 11 34 D.	23 51	1/16	Carangooly	434.3
Carangooly	Mullapode	0 09 20 D.				
Carangooly	Wooritty Hill ..	0 02 17 D.	15 39	1/10	Wooritty	552.7
Wooritty Hill ..	Carangooly Hill	0 10 25 D.				
Wooritty Hill ..	Permacoil Hill ..	0 08 36 D.	11 14	1/22	Permacoil ...	484.5
Permacoil Hill ..	Wooritty Hill ..	0 01 38 D.				
Permacoil Hill ..	Maillacherry ..	0 07 27 E.	21 36	1/19	Maillacherry ..	1140.8
Maillacherry ..	Permacoil	0 26 47 D.				
Maillacherry ..	Karnatighur	0 34 42 E.	25 27	1/10	Karnatighur	3204.0
Karnatighur	Maillacherry ..	0 57 03 D.				
Karnatighur	Kylasghur	0 23 02 D.	15 44	1/23	Kylasghur	2766.2
Kylasghur	Karnatighur	0 08 36 E.				
Kylasghur	Yerracondah ..	0 12 53 D.	46 33	1/17	Yerracondah ..	3396.9
Yerracondah ..	Kylasghur	0 28 13 D.				
Yerracondah ..	Savendroog	0 17 55 D.	57 50	1/11	Savendroog	4004.9
Savendroog	Yerracondah ..	0 29 50 D.				
Savendroog	Mullapunnabetta	0 31 10 D.	58 52	1/15	Mullapunnabetta	3406.7
Mullapunnabetta	Savendroog	0 19 41 D.				
Mullapunnabetta	Koondhully Hill.	0 00 51 E.	34 14	1/16	Koondhully	4366.3
Koondhully Hill	Mullapunnabetta	0 30 36 D.				
Koondhully Hill	Bullamully	1 17 40 D.	40 53	1/17	Bullamully	774.5
Bullamully	Koondhully	0 31 46 E.				
Bullamully	Kudapoonabetta	0 25 08 D.	13 6	1/12	Kudapoonabetta	318.7
Kudapoonabetta	Bullamully	0 14 15 E.				
Kudapoonabetta	Eedgah Station	0 35 37 D.	2 49	1/7	Eedgah Station	146.7
Eedgah Station	Kudapoonabetta	0 33 29 E.				
Eedgah Station	Stat. on the Beach	0 58 53 D.	1 39		Stat. on the Beach	22.6
Stat. on the Beach	Eedgah Station	0 56 36 E.				

The station on the beach above the low-water mark by measurement.....	14.0
Difference or error.....	8.6

2. Stations not lying in the nearest direction between the two seas, and commencing from *Kylnsghur*.

Stations at	Stations Observed.	Apparent. E^n & D^n	Cont. Arcs.	Refract.	Elevation above the Sea. Stations.	Heights.
						feet.
Yerracondah ..	Patticondah	0° 21′ 29″ D	28′ 6″	1/16	Patticondah	2942.7
Patticondah	Yerracondah ..	0 3 11 D.				
Patticondah	Bodeemulla	0 40 25 D.	24 53	1/16	Bodeemulla	1646.6
Bodeemulla	Patticondah	0 18 34 E				
Yerracondah ..	Rymandroog ..	0 0 39 D.	33 4	1/20	Rymandroog ..	4226.8
Rymandroog ..	Yerracondah ..	0 29 9 D.				
Rymandroog ..	Nundydroog ..	0 10 26 E.	18 54	1/19	Nundydroog ..	4856.8
Nundydroog ..	Rymandroog ..	0 27 19 D.				
Nundydroog ..	Devaroydroog ..	0 30 56 D.	27 40	1/17	Devaroydroog ..	3940.2
Devaroydroog ..	Nundydroog	0 6 35 E				
Yerracondah ..	Tirtapully	0 16 9 D.	25 4	1/24	Tirtapully	3182.9
Tirtapully Hill ..	Yerracondah ..	0 6 39 D				
Tirtapully Hill ..	Bonnairgottah ..	0 7 16 D.	22 49	1/21	Bonnairgottah ..	3305.1
Bonnairgottah ..	Tirtapully Hill ..	0 13 20 D.				
Bonnairgottah ..	S. end of the Base	0 25 38 D.	7 11	1/40	S. end of Base ..	3023.6
S. end of the Base	Bonnairgottah ..	0 18 49 E.				
Savendroog	Bandhullydroog	0 15 41 D.	42 59	1/17	Bandhullydroog	4254.5
Bundhully	Savendroog	0 22 17 D.				
Deorabetta	Ponnassmulla ..	0 17 18 E.	28 47	1/17	Ponnassmulla ..	4928.3
Ponnassmulla ..	Deorabetta	0 42 45 D.				
Ponnassmulla ..	Paulamulla	0 11 46 D.	27 40	1/19	Paulamulla	4958.8
Paulamulla	Ponnassmulla ..	0 13 1 D.				
Paulamulla	Woorachmulla ..	2 34 47 D.	13 18	1/22	Woorachmulla ..	1472
Woorachmulla ..	Paulamulla	2 22 42 E.				
Bonnairgottah ..	Deorabetta	0 0 0	11 35	1/16	Deorabetta	3408
Deorabetta	Bonnairgottah ..	0 10 6 D.				
Woorachmulla ..	Shennimulla	0 0 6 D.	20 7	1/20	Shennimulla	1788.6
Shennimulla	Woorachmulla ..	0 17 58 D.				
Shennimulla	N.W. end of Base	0 48 13 D.	9 21	1/14	N. W. end of Base	1060.3
N.W. end of the B	Shennimulla	0 40 15 E				
Shennimulla	Puchapolliam ..	0 48 53 D.	9 57	1/14	Puchapolliam ..	1010.4
Puchapolliam ..	Shennimulla	0 40 20 E.				
N.W. end of the B	S. E. end of Base	0 16 26 D.	5 19	1/9	S. E. end of Base	925.5
S.E. end of the B.	N.W. end of Base	0 12 16 E				
Bonnairgottah ..	Dodagoontah ..	0 18 10 D.	11 40	1/17	Dodagoontah ..	3037.9
Tirtapully Hill ..	Allasoor Hill ..	0 1 40 D.	17 16	1/35	Allasoor Hill ..	3380.6
Allasoor Hill ..	Tirtapully	0 14 38 D.				
Allasoor Hill ..	Kulkotah	0 6 17 D.	15 34	1/28	Kulkotah	3406.6
Kulkotah	Allasoor Hill ..	0 8 11 D.				
Kulkotah	Yerracondah ..	0 23 45 D.	29 54	1/16	Yerracondah ..	2848
Yerracondah ..	Kulkotah	0 2 30 D.				
Yerracondah ..	Bomasundrum ..	0 46 2 D.	11 9	1/16	Bomasundrum ..	2037.7
Bomasundrum ..	Yerracondah ..	0 36 19 E.				
Yerracondah ..	Paughur	0 6 9 D.	24 34	1/17	Paughur	3052.6
Paughur	Yerracondah ..	0 15 35 D.				
Savendroog	Cheetkul	0 26 33 D.	24 7	1/17	Cheetkul	3329.3

TABLE—CONTINUED.

Stations at	Stations Observed.	Apparent E^{n}. & D^{n}.				Cont. Arcs.		Refract.	Elevations above the Sea. Stations.	Heig^{hts}.
										feet.
Cheetkul Hill ..	Bailippee	0°	25′	34″	D.	19′	52″	1/31	Bailippee	2760.6
Bailippee	Cheetkul	0	6	56	E.					
Bundhully	Kumbetarene ..	0	3	26	E.	36	56	1/18	Kumbetarine ..	5548.6
Kumbetarenemulla	Bundhully	0	36	23	D.					
Bundhully	Mysoor Hill	0	29	27	D.	39	21	1/21	Mysoor Hill	3446.6
Mysoor Hill	Bundhully	0	6	13	D.					
Mysoor Hill	Bettatipoor	0	0	11	D.	34	14	1/17	Bettatipoor	4349.7
Bettatipoor	Mysoor Hill	0	30	4	D.					
Mullapunnabetta	Bettatipoor Hill	0	5	6	E.	29	37	1/16	Bettatipoor	4347.3
Bettatipoor Hill	Mullapunnabetta	0	30	58	D.					
Mullapunnabetta	Bomanelly	0	18	52	D.	29	30	1/30	Bomanelly	3142.3
Bomanelly	Mullapunnabetta	0	8	42	D.					
Bomanelly	Daesauneegooda	0	0	6	E.	28	46	1/16	Daesauneegooda	3804.1
Daesauneegooda	Bomanelly	0	25	55	D.					
Daesauneegooda	Hannabetta	0	13	30	D.	25	54	1/17	Hannabetta	3711.1
Hannabetta	Daesauneegooda	0	9	27	D.					
Mullapunnabetta	Balroyndroog ..	0	7	3	D.	52	42	1/24	Balroyndroog ..	4998.9
Balroyndroog ..	Mullapunnabetta	0	41	16	D.					
Bettatipoor	Taddiandamole	0	8	15	E.	32	59	1/18	Taddiandamole	5681.8
Taddiandamole	Bettatipoor	0	37	30	D.					
Taddiandamole	Mount Dilli	1	56	5	D.	26	27	1/17	Mount Dilli	804.7
Kunduddakamully	Taddiandamole	1	17	19	E.	24	34	1/17	Kunduddakamully	1856.2
Kunduddakamully	Baekul	1	31	47	D.	11	33	1/16	Baekul	86.7
Baekul	Kunduddakamully	1	21	40	E.					
Bullamully	Kunnoor Hill ..	0	29	53	D.	11	48	1/16	Kunnoor	253.9
Kunnoor	Bullamully	0	19	35	E.					
Koondhully	Soobramanee ..	2	22	57	E.	4	32	1/17	Soobramanee ..	5583.5
Koondhully	Koondoor Hill ..	0	25	49	D.	15	54	1/21	Koondoor Hill ..	3844.5
Koondoor Hill ..	Koondhully	0	11	25	E.					
Meejar Hill	Kudapoonabetta	0	23	31	D.	9	52	1/17	Meejar Hill	651.9
Meejar Hill	Booggargooda ..	0	1	16	D.	3	59	1/23	Booggargooda ..	654.9
Booggargooda ..	Meejar Hill	0	2	23	D.					
Stat. on the Beech	Kooliebogooda	0	14	39	E.	6	5	1/4	Kooliebogooda	200.5
Kooliebogooda ..	Stat. on the Beach	0	17	55	D.					

1
2
3
4
5
Fig 1

V.

An ACCOUNT *of the* MALE PLANT, *which furnishes the Medicine generally called* COLUMBO, *or* COLOMBA *Root.*

BY DOCTOR ANDREW BERRY,

Member of the Medical Board of Fort St. George.

KALUMB *of the Africans.*

COLOMBA, *or* COLUMBO *of the Shops.*

IT is spelt *Kalumbo* by the *Portuguese*, in whose language the *o* is mute, and from this the name originated, by which this valuable root is known in *Europe*. It is a staple export of the *Portuguese* from *Mozambique*, and from the quantity exported, it is remarkable that the place of its growth, should have been so long unknown or doubtful to the rest of *Europe*.

IT is never cultivated, but grows naturally, and in abundance, in the thick forests, that are said to cover the coast about *Oibo*, and *Mozambique*, and inland about 15 or 20 miles. The roots are dug up in the month of March, the dry season; or when the natives are not employed in agriculture; not the original root, which is perennial, but offsets from its base, and that of sufficient size, yet not so old as to be full of fibres, which render it unfit for commerce.

THIS root is in high estimation among all the *Africans*, even far removed from *Mozambique*, for the cure of dysentery, which is frequent among them; for venereals; for all complaints of long standing; in powder for the cure of ulcers, and as a remedy for almost every disorder.

Soon after it is dug up, the root is cut into slices, strung on cords, and hung up to dry in the shade. It is deemed merchantable, when, on exposure to the sun, it breaks short; and of a bad quality when it is soft, or black.

I am indebted for the above account of the columbo root, to Mons. Fortin; who, when at *Mozambique*, purchasing it as an article of trade, procured an entire offset from the main root, of a larger size than usual; which he brought with him to *Madras*, in September 1805; and presented it to Doctor James Anderson, the Physician General; who considered it a valuable present to himself, and a great acquisition to *India*.

This root was cylindrical, somewhat flattened on the opposite sides; about 15 inches in length, a part being broken off; and between 3 and 4 inches in diameter; outwardly the common colour of columbo, but on breaking the surface, which is covered by a thin, tender, brownish pellicle, of a fine yellow.

The root being succulent, and heavy, I planted it horizontally in a large box, filled with garden mould, where, in about a fortnight, it shot out two stems from the end that had been broken off from the parent root, but from not being vigorous, no flowers were then produced; and in about six months, from the time it had been planted, the stems withered down to the ground.

The root was then carefully taken up, which was not altered in size, or appearance, but from the end opposite to where the stems had shot out several fusiform roots, or sessile tubers, had grown, as represented in the accompanying drawing, *(Fig. 2)* These had evidently suffered from confinement in the box; none of

the roots were then separated, and the whole was deposited in a cool room, and covered with a moist sand; where in about two months, the old root began again to throw out several buds from the same end as before. It was now planted in the ground, when one more vigorous shoot, which grew rapidly, soon destroyed the others; and in a month this shoot produced male flowers only, nor after the strictest search, could any other be found on the plant, so that the genus is as yet uncertain.

THIS stem, like the former, withered in six months, when the roots were dug up, and found considerably larger, but not much altered in shape, nor had any of them attained a size to be compared with the original. There was only the addition of one new lateral root or branch, from this second year's growth. As it was supposed that these roots would now vegetate, they were detached; which has been unfortunate, as several months have now elapsed, and no buds have formed: they are however still very fresh, and may yet grow. From this it appears that only large roots are fit for planting out.

FROM the male flowers, and habit of the plant, the columbo seems to belong to the natural order of *Sarmentaceæ Linn.* or *Menisperma* of *Jussieu.* The following description may help to decide.

PLANTA Herbacea.

RADIX perennis, ramosa; rami fusiformes.
CAULIS annuus, post sex, aut septem menses marcescens, volubilis, simplex, teres, pilosus, crassitudine pennæ.
FOLIA alterna, petiolata, semipedalia et majora, quinqueloba, quinquenervia; lobis integerrimis, acuminatis.
PETIOLI teretes, pilosi, basi reflexi, folio paulo breviores.

Masculi Flores.

Racemi axillares, solitarii, compositi, pilosi, folio breviores. *Pedunculi* partiales alterni, floribus sessilibus.
Bracteæ lanceolatæ, ciliatæ, deciduæ.
Calyx *Perianthium* hexaphyllum; foliolis æqualibus, tribus exterioribus, tribus interioribus; oblongis, obtusis, glabris.
Corolla hexapetala, minuta, *Petala* cuneato-oblonga, concava, carnosa, obtusa, stamina ambientia.
Stamina, *Filamenta* sex, corolla paulo longiora. *Antheræ* quadrilobæ, quadriloculares.
Pistillum nullum.

EXPLANATION OF THE FIGURES.

Fig. 1. The extremity of the shoot that flowered in 1807, rather smaller than the natural size.

2. The whole root, about one-third of the natural size only.

3. One of the bracteæ.

4. The underside of one of the flowers.

5. The upperside of the same. These three are magnified.

6. One of the petals more magnified than the last three.

7. The underside of one of the stamina, in the enlarged apex of which the four polliniferous pits are seen.

VI.

On SANSCRĬT *and* PRA'CRĬT POETRY.

BY HENRY THOMAS COLEBROOKE, ESQ.

THE design of the present essay is not an enumeration of the poetical compositions current among the *Hindus*, nor an examination of their poetry by maxims of criticism recognized in *Europe*; or by rules of composition taught in their own treatises of rhetorick; but to exhibit the laws of versification, together with brief notices of the most celebrated poems in which these have been exemplified.

AN inquiry into the prosody of the ancient and learned language of *India* will not be deemed an unnecessary introduction to the extracts from *Indian* poems, which may be occasionally inserted in the supplementary volumes of Asiatick Researches; and our transactions record more than one instance of the aid which was derived from a knowledge of *Sanscrĭt* prosody, in decyphering passages rendered obscure by the obsoleteness of the character, or by the inaccuracy of the transcripts *. It will be found similarly useful by every person who studies that language; since manuscripts are in general grossly incorrect: and a familiarity with the metre will frequently assist the reader in restoring the text where it has been corrupted. Even to those, who are unacquainted with the language, a concise explanation of the *Indian* system of prosody may be curious, since the artifice of its construction is peculiar,

* Vol. I. p. 279. Vol. II. p. 389.

and not devoid of ingenuity: and the prosody of *Sanscrĭt* will be found to be richer than that of any other known language, in variations of metre, regulated either by quantity or by number of syllables, both with and without rhyme, and subject to laws imposing in some instances rigid restrictions, in others allowing ample latitude. I am prompted by these considerations to undertake the explanation of that system, premising a few remarks on the original works in which it is taught, and adding notices of the poems from which examples are selected.

THE rules of prosody are contained in *Sútras* or brief aphorisms, the reputed author of which is PINGALANA'GA, a fabulous being, represented by mythologists in the shape of a serpent; and the same, who, under the title of PATANJALI, is the supposed author o the *Mahábháshya*, or great commentary on grammar, and also of the text of the *Yóga s'ástra* *; and to whom likewise the text or the commentary of the *Jyótish* annexed to the *Védas* †, appears to be attributed. The aphorisms of PINGALA'CHA'RYA, as he is sometimes called, on the prosody of *Sanscrĭt* (exclusive of the rules in *Prácrĭt* likewise ascribed to him), are collected into eight books, the first of which allots names, or rather literal marks, to feet consisting of one, two or three syllables. The second book teaches the manner, in which passages of the *Védas* are measured. The third explains the variations in the subdivision of the couplet and stanza. The fourth treats of profane poetry, and especially of verses, in which the number of syllables, or their quantity, is not uniform. The

* Or *Sánc'hya* system of philosophy; distinguished from that of CAPILA.

† In the subscription to the only copy of this commentary, which I have seen, it is ascribed to SESHANAGA; but, in the body of the work, the commentator calls himself SOMACARA.

fifth, sixth and seventh exhibit metres of that sort which has been called monoschemastic, or uniform, because the same feet recur invariably in the same places. The eighth and last book serves as an appendix to the whole, and contains rules for computing all the possible combinations of long and short syllables in verses of any length.

THIS author cites earlier writers on prosody, whose works appear to have been lost: such as SAITAVA, CRAUSHTICA, TA'NDIN, and other ancient sages, YA'SCA, CA'S'YAPA, &c.

PINGALA'S text has been interpreted by various commentators; and, among others, by HELA'YUD'HA BHAT'T'A, author of an excellent gloss entitled *Mrĭta sanjívaní* *. It is the work on which I have chiefly relied. A more modern commentary, or rather a paraphrase in verse, by NA'RA'YAN'A BHAT'T'A TA'RA', under the title of *Vrĭttócti ratna*, presents the singularity of being interpreted throughout in a double sense, by the author himself, in a further gloss entitled *Paricshá*.

THE *Agnipurán'a* is quoted for a complete system of prosody †, founded apparently on PINGALA'S aphorisms; but which serves to correct or to supply the text in many places; and which is accordingly used for that purpose by commentators. Original treatises likewise have been composed by various authors ‡: and among others by the celebrated poet CA'LIDA'SA. In

* I possess three copies of it; two of which are apparently ancient: but they have no dates.

† It is stated by the authors, who quote it, (NARAYANA BHATTA and others,) to be an extract from the *Agni puráṇa*: but I have not been able to verify its place in that *Puráṇa*.

‡ Such are the *Vánibhúshana*, *Vritta-darpana*, *Vritta-caumudí*, and *Vritta-retnácara*, with the *Ch'handó-mánjari*, *Ch'handó-mártanda*, *Ch'handó-málá*. *Ch'handó-niviti*, *Ch'handó-govinda*, and several tracts under the title of *Vritta-muctávalí*, besides treatises included in

a short treatise entitled *S'ruta bód'ha*, this poet teaches the laws of versification in the very metre to which they relate: and has thus united the example with the precept. The same mode has been also practised by many other writers on prosody; and, in particular, by PINGALA'S commentator NA'RA'YAN'A BHAT'T'A; and by the authors of the *Vrĭtta Retnácara* and *Vrĭtta derpan'a*.

CA'LIDA'SA'S *S'ruta bód'ha* exhibits only the most common sorts of metre, and is founded on PINGALA'S *Prácrĭt* rules of prosody; as has been remarked by one of the commentators * on the *Vrĭtta Retnácara*.

THE rules, generally cited under the title of *Prácrit Pingala*, have been explained in a metrical paraphrase, teaching the construction of each species of metre in a stanza of the same measure, and subjoining select examples. This *Prácrit* paraphrase, entitled *Pingala vritti*, is quoted under the name of HAMMÍRA †, who is celebrated in more than one passage given as examples of metre: and who probably patronised the author. It has been imitated in a modern *Sanscrit* treatise on *Prácrit* prosody entitled *Vritta muctávalí* ‡; and has been copiously explained in a *Sanscrit* commentary named *Píngala pracása* §.

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works on other subjects. For example VARAHAMIHIRA'S system of astrology, which contains a chapter on prosody.

The *Vritta-retnácara* CEDARA BHATTA, with its commentaries by DIVACARA BHATTA, NARAYANA BHATTA and HARI-BHASCARA, has been the most consulted for the present treatise. The *Vritta-derpana*, which relates chiefly to *Prácrit* prosody, has been also much employed.

* DIVACARA BHATTA.

† In the commentary on the *Vrittocti-ratna*.

‡ The author DURGADATTA was patronised by the *Hindúpati* princes of *Bundélc'hand*. The examples, which like the text are *Sanscrit* in *Prácrit* measure, are in praise of these chieftains.

§ By VISWARATHA.

Fig. 1.

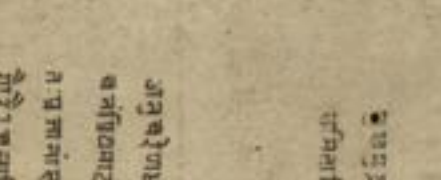

Fig. 2.

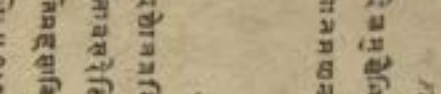

Fig. 3.

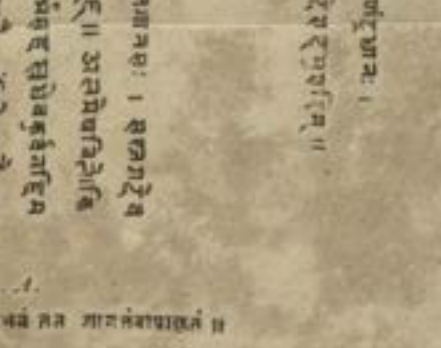

Fig. 4.

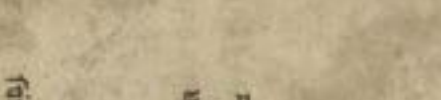

Fig. 5.

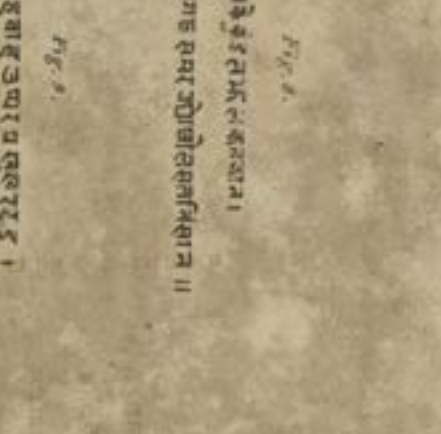

Fig. 6.

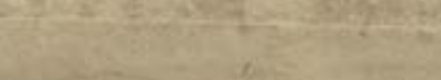

Fig. 7.

Fig. 8.

Fig. 9.

THOUGH relative to *Prácrĭt* prosody, the rules are applicable, for the moſt part, to *Sanscrit* prosody alſo: since the laws of verſification in both languages are nearly the same.

THE *Prácrit*, here meant, is the language uſually employed, under this name by dramatick writers; and not in a more general ſenſe of the term, any regular provincial dialect corrupted from *Sanscrit*. HE'MACHANDRA, in his grammar of *Prácrit*, declares it to be ſo called because it is derived from *Sanscrit* *.

ACCORDINGLY his and other grammars of the language conſiſt of rules for the transformation of *Sanscrit* words into the derivative tongue: and the ſpecimens of it in the *Indian* dramas, as well as in the books of the *Jains*, exhibit few words which may not be traced to a *Sanscrit* origin. This is equally true of the ſeveral dialects of *Prácrit:* viz. *S'auraſéní* or language of *S'uraſéna*,† and *Mágad'hí* or dialect of *Magadha*;‡ which according to grammarians, who give rules for deducing the firſt from *Sanscrit*, and the ſecond from the firſt,§ or both from *Sanscrit*,‖ are dialects nearly allied to *Prácrit*, and regularly formed by permutations, for which the rules are ſtated by them. The ſame may be

* SEE PLATE A. Fig. *a*.

† CULLUCA BHATTA (on MENU 2. 19.) ſays, that *Suraſéna* is the country of *Mat'hura*.

‡ *Cheata* or *Bihar*. But it does not appear, that either this, or the preceding dialect, is now ſpoken in the country, from which it takes its name. Specimens of both are frequent in the *Indian* dramas.

§ VARARUCHI, and his commentator BHAMAHA.

‖ HEMACHANDRA, who, after ſtating the ſpecial permutations of theſe dialects as derived from *Sanscrit*, obſerves in both places, that the reſt of the permutations are the ſame with thoſe of *Prácrit*.

said of the *Pais'áchí*, as a language, (and distinguished from the jargon or gibberish which either dramatick writers, or actors exhibiting their dramas, sometimes put into the mouths of demons); for the grammarians of *Prácrit* teach the manner of forming the *Pais'áchi** from the dialect called *S'auraséni*.† That remark may be also extended to *Apabhrans'a* as a fixed language partaking of *Prácrit* and *S'auraséni*, but deducing many terms immediately from the *Sanscrit* under rules of permutation peculiar to itself. ‡

THE affinity of these dialects of *Prácrit* to the *Sanscrit* and to each other is so great, that they reciprocally borrow, notwithstanding their own particular rules, terms permuted in the manner of other dialects, and even admit, without alteration, words inflected according to the *Sanscrit* grammar. § They may be, therefore, considered as dialects of a single language, the *Prácrit* or derivative tongue; so termed with reference to *Sanscrit*, from which it is derived.

BESIDES these cognate dialects, the dramatick writers introduced other languages as spoken by different persons of the drama. Such, according to the enumeration in the *Sáhitya derpan'a*, ‖ are the *Dácshin'átyá*, ¶ or language used in the south of *India*; the *Drávi'di* or

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* Or language of the *Pis'áchas*. [See PLATE A. Fig. *b*.] BHAMAHA on VARARUCHI.

† VARARUCHI and HEMACHANDRA. The last mentioned author notices a variation of this dialect under the name of *Chulicápaisáchi*; which differs very little from the proper *Paisáchi*.

‡ It is taught under this name by HEMACHANDRA, among other dialects of *Prácrit*. But the name usually signifies ungrammatical language.

§ HEMACHANDRA ad finem.

‖ Ch. 5.

¶ Some with *Vaidarbhi*, according to the commentator of the *Sáhitya derpana*. The country of *Viderbha* is said to be the modern *Berar* proper.

dialect of the southern extremity of the peninsula; the *Avantícá* (probably the language of *Málavá*);* the *Ard'ha mágad'hí*, distinguished from *Mágad'hí* properly so called; the *Báhlicábhásha*, perhaps the language of *Balk* in the *Transoxana*); † the *Mahárásh'trí* or dialect of the *Marhattas*; the *Práchyá* or language employed in the east of *India*; ‡ the *Abhírí* and *Chándálí*, which from their names, seem to be dialects used by herdsmen and by persons of the lowest tribes; the *Sáncará* and *Sábari*, concerning which nothing satisfactory can be at present suggested; and generally any provincial dialect.

It is not to be supposed, that the *Prácrit* rules of prosody, as taught by Pingala, are suited to all these languages: but it is probable, that they were framed for the same dialect of *Prácrit*, in which they are composed; and they are applicable to those cognate dialects, which differ much less from each other (being very easily confounded), than they all do from *Sanscrit*, their acknowledged common parent. Generally those rules may be considered applicable to all the languages comprehended under the designation of *Prácrit*, § as derivative from *Sanscrit*; and certainly so to the vernacular tongues of the ten nations of *Hindus* now inhabiting *India*. A writer on *Sanscrit* prosody || pronounces

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* *Avanti* is another name of *Ujjayani*.

† *Báhlica* or *Bahlica* (for the word is spelt variously (is a country famous for the breed of horses. Amera. 2. 8. 45. It appears to be situated north of *India*; being mentioned in enumerations of countries, with *Turushca*, *C'hasa*, *Casmira*, &c. (Hemachandra. 4. 25. *Tricanda s'esha*. 2. 1. 9.)

‡ The commentator on the *Sahitya derpana* (Rama Charana), interprets *Prachya*, by *Gaudiya*; meaning, no doubt, the language of *Bengal*. He was himself a native of this province; and his work is modern, being dated *Saca* 1622 (A. D. 1700.)

§ As. Res. VII. p. 219.

|| Narayana bhatta in a commentary on the *Vritta ratnacara* written in *Sambat* 1602 (A. D. 1546.)

the various kind of metre to be admissible in the provincial languages, and has quoted examples in those of *Máhárásht'rá*, *Gurjara* and *Cányacubja*. The last mentioned, which is the same with the old *Hindi*, as is demonstrated by this specimen of it, might furnish very numerous instances; especially the *Hindi* poetry of CE'SAVA DA'SA,* who has studiously employed a great variety of metre. Some examples will accordingly be quoted from the most distinguished *Hindi* poets. The sacred books of the *Sikhs*, composed in a *Penjábi* dialect, which is undoubtedly derived from the ancient *Sáreswata*,† abound in specimens of such metre. The language of *Mit'hilá*, and its kindred tongue, which prevails in *Bengal*, also supply proof of the aptitude of *Sanscrit* prosody: and the same is probably true of the other four national languages. ‡

PINGALA'S rules of *Sanscrit* prosody are expressed with singular brevity. The artifice, by which this has been effected, is the use of single letters to denote the feet of the syllables. Thus L. the initial of a word signifying short *(lag'hu)*, indicates a short syllable. G. for a similar reason,§ intends a long one. The combinations of these two letters denote the several dissyllables: lg signifying an iambic; gl a trochæus or choreus; gg a spondee; ll a pyrrichius. The letters, M.Y.R.S.T.J.Bh. and N, mark all the trisyllabical feet, from three long syllables to as many short. A *San-*

* Contemporary with JEHANGIR and SHAH JEHAN.

† The remaining *Sareswata Brahmanas* inhabit chiefly the *Penjab*.

‡ Those of *Dravida*, *Carnataca*, *Telinga*, and *Odra* or *Udiya*. I omit *Gaura*. The *Brahmanas*, bearing this national designation, are settled in the districts around *Delhi*: but, unless theirs be the language of *Mat'hura*, it is not easy to assign to them a particular national tongue.

§ Being the initial of *guru*, long.

scrit verse is generally scaned by these last mentioned feet; with the addition of either a dissyllable or a monosyllable at the close of the verse, if necessary. This may be rendered plain by an example taken from the *Greek* and *Latin* prosody.

SCANNED in the *Indian* manner, a phaleucian verse, instead of a spondee, a dactyl and three trochees, would be measured by a molossus, an anapæst, an amphibrachys and a trochee; expressed thus, m. s. j. g. l. A sapphic verse would be similarly measured by a cretic, an antibacchius, an amphibrachys and a trochee; written r. t. j. g. l.

To avoid the two frequent use of uncommon terms, I shall, in describing the different sorts of *Sanscrit* metre, occasionally adopt a mode of stating the measure more consonant to the *Greek* and *Latin* prosody, in which the iambic, trochee, and spondee, dactyl, anapæst, and tribrachys are the only feet of two or three syllables which are commonly employed.

IN *Prácrit* prosody the variety of feet is much greater: verses being scanned by feet of different lengths from two *mátrás*, (two short syllables or one long) to three, four, five and even six *mátrás* or instants. These various descriptions of feet have been classed, and denominated, by the writers on this branch of prosody.

THE verse, according to the *Sanscrit* system of prosody, is the component part of a couplet, stanza or strophe, commonly named a *S'lóca*, although this term be sometimes restricted to one sort of metre, as will be subsequently shown on the authority of CA'LIDASA.

The stanza or strophe consists usually of four verses denominated *páda*; or, considered as a couplet, it comprises two verses subdivided into *pádas* or measures. Whether it be deemed a stanza or a couplet, its half, called *ard'has'lóca*, contains usually two *pádas*; and in general the pauses of the sense correspond with the principal pauses of the metre, which are accordingly indicated by lines of separation at the close of the *s'lóca* and of its hemistich. When the sense is suspended to the close of a second *S'lóca*, the double stanza is denominated *Yugma*; while one, comprising a greater number of measure, is termed *Culaca*. In common with others, I have sometimes translated *s'lóca* by "verse," or by "couplet;" but, in prosody, it can only be considered as a stanza, though the pauses are not always very perfectly marked until the close of the first half: and in conformity to the *Indian* system, it is generally treated as a tetrastich, though some kinds of regular metre have uniform pauses which might permit a division of the stanza into eight, twelve, and even sixteen verses.

In *Prácrit* prosody, a greater variety is admitted in the length of the stanza; some species of metre being restricted to a true couplet, and others extended to stanzas of six and even sixteen verses: independently of pauses, which, being usually marked by rhyme, would justify the farther subdivision of the stanza into as many verses as there are pauses. Even in *Sanscrit* prosody, instances occur of stanzas, avowedly comprising a greater or a less number of verses than four: as three, five, six, &c. But these are merely exceptions to the general rule.

CONCERNING the length of the vowels in *Sanscrit* verse, since none are ambiguous, it is only necessary to remark, that the comparative length of syllables is determined by the allotment of one instant or *mátrá* to a short syllable, and two to a long one; that a naturally short vowel becomes long in prosody when it is followed by a double or conjunct consonant;* and that the last syllable of a verse is either long or short, according to the exigence of the metre,† whatever may be its natural length.

Sanscrit prosody admits two sorts of metre. One governed by the number of syllables; and which is mostly uniform or monoschematic in profane poetry, but altogether arbitrary in various metrical passages of the *Védas*. The other is in fact measured by feet like the hexameters of *Greek* and *Latin:* but only one sort of this metre, which is denominated *A'ryá*, is acknowledged to be so regulated; while another sort is governed by the number of syllabic instants or *mátrás*.

* Or by the nasal termed *Anuswara*, or the aspirate *Visarga*. By poetical license, a vowel may be short before certain conjuncts (viz. as in PLATE A. Fig. *c*.) This license has been borrowed from *Prncrit* prosody, by the rules of which a vowel is allowed to be sometimes short before any conjunct, as before the nasal: but instances of this license occur in classical poems with only four conjuncts as above mentioned; and, even there, emendations of the text have been proposed by criticks to render the verse conformable to the general laws of prosody, (See remarks in the *Durghat'a vritti*; *Cumara.*)

† This rule of prosody is applicable to any verse of the tetrastichs: but it is considered by writers on rhetorick inelegant to use the privilege in the uneven verses; and they thus restrict the rule to the close of the stanza and of its half, especially in the more rigid species of regular metre.

1. *Gan'ach'handas* or metre regulated by feet (*mátráganá.*)

A'RYA' or GA'T'HA'.

THE metre, named *A'ryá*, or in *Prácrit, Gáhá*, from the *Sanscrit Gát'há*, is measured by feet denominated *gan'a*, or *mátrágan'a*, which are equivalent to two long syllables or to four short: it is described as a couplet, in which the first verse contains seven and half feet; and the sixth foot must consist of a long syllable between two short, or else of four short; while the odd feet (1st, 3d, 5th, and 7th) must never be amphibrachys.* In the second verse of the couplet, the sixth foot (for here too it retains that name) consists of a single short syllable. Consequently the proportion of syllabick instants in the long and short verses is thirty to twenty-seven.† The same metre has, with some propriety, been described as a stanza of four verses:‡ for it is subdivided by its pauses into four *pádas*, which have the usual privilege of going to the last syllable, whether naturally long or short, the length required by the metre. The cause is commonly restricted to the close of the third foot; and the measure is in this case denominated *Pat'hyá:* but, if the pause be placed otherwise in either verse, or in both of them, the metre is named *Vipulá.*

A PARTICULAR sort of this measure, deduced from either species above described, is called *Chapalá*; and the laws of its construction require, that the second and fourth feet should be amphibrachys; and that the first foot should be either a spondee or an anapæst; and

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* If the rule be violated, the metre is named *Gurvini*; but this is reprobated by writers on prosody.

† As Res. Vol. II. p. 390.

‡ *Vritta muctavali.*

the fifth, a dactyl or a spondee. The first verse of the couplet, the second or both, may be constructed according to these rigid rules: hence three varieties of this sort of metre.

THE regular *A'ryá* consists of alternate long and short verses: but, if the short verse precede the long one, the metre is called *Udgiti*. If the couplet consist of two long verses, it is named *Giti*; or of two short verses, *Upagiti*. Another sort of this metre is named *A'ryá giti*: it is constructed by completing the eighth foot of the regular *A'ryá* *.

THIS measure admits therefore of eighty principal variations; deducible from the nine sorts abovementioned: for the pause may be placed at the close of the third foot in either verse of each couplet, in both, or in neither; and either verse, both, or neither, may be constructed according to the strict rules of the *Chapalá* measure; and the verse may consist of seven and a half, or of eight feet; and may be arranged in couplets consisting of verses alternately long and short, or alternately short and long, or else uniformly long, or uniformly short.

THE *A'ryá* metre is very frequently employed by *Indian* poets; but works of great length in this measure are not common: it is oftener intermixed with verses of other kinds, though instances do occur of its exclusive use: thus the first and fourth cantos, and most part of the 2d and 3d, in the poem entitled *Nalodaya*, and the entire work of GO'VERD'HANA †, are in the *A'ryá* metre. And so is the brief text of the *Sánc'hya*

* It may be varied by alternating a long and a short verse, or a short and a long one, or by making both verses long.

† Consisting of seven hundred (or with the introduction 755) stanzas of miscellaneous poetry; and entitled from the number of stanzas *Sapta sati*.

philosophy of CAPILA, as taught by IS'WARACRISHN'A *; and the copious treatise of astronomy by BRAHMEGUPTA †.

THE *Nalodaya* abovementioned, which is ascribed to the celebrated poet CA'LIDA'SA, is a poem in four cantos, comprising 220 couplets or stanzas ‡; on the adventures of NALA and DAMAYANTÍ: a story which is already known to the *English* reader §. In this singular poem, rhyme and alliteration are combined in the termination of the verses: for the three or four last syllables of each hemistich within the stanza are the same in sound though different in sense. It is a series of puns on a pathetick subject.

IT is supposed to have been written in emulation of a short poem (of 22 stanzas) similarly constructed but with less repetition of each rhyme; and entitled from the words of the challenge with which it concludes, *Ghat'a carpára*

[SEE PLATE A. Fig. 1.]

'THIRSTY and touching water to be sipped from the hollow palms of my hands, I swear by the loves of sprightly damsels, that I will carry water in a broken pitcher for any poet by whom I am surpassed in rhymes.'

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* Author of the *Carica* or metrical maxims of this philosophy. *Sutras*, or aphorisms in prose, which are ascribed to CAPILA himself, are extant: but the work of ISWARA CRISHNA is studied as the text of the *Sanc'hya* (As. Res. Vol. VIII. p. 466.)

† Entitled *Brahmesphuta sidd'hanta*: other treatises, bearing the same or a similar title, are works of different authors.

‡ Chiefly *Arya*, with a few anapæstic stanzas (*Totaca*), and a still smaller number of iambics and trochaics (*Pramani* and *Samani*.)

§ Translated by Mr. KINDERSLEY of *Madras*, from a tale in the provincial language.

HOWEVER, the epick poem of MA'G'HA, which will be mentioned more particularly under the next head, contains a specimen of similar alliteration and rhyme; the last fourteen stanzas of the sixth canto, (descriptive of the seasons,) being constructed with like terminations to each half of the stanza. Instances will also be cited from BHA'RAVI's poem hereafter noticed.

THE following example of a species of the *A'ryá* metre is taken from the preface of the *Nalodaya*.

A'ryá giti (8 feet).

[SEE PLATE A. Fig. 2.]

"THE king celebrated under the name of RAMA *, exists; who is conversant with the supreme ways of moral conduct; in whose family, exempt from calamity and enriched with the gems of the earth, dependants flourish." 1. 5.

THE next is taken from DAMAYANTI's lamentation on finding herself deserted by her husband NALA. It is in the same species of metre.

26. Tatra, padé vyálínám,
at'ha vibhrántam vané cha dévyá, 'línám
tanu-vrindé vyálínám
tatin dad'háné, tayá'spadé vyálínam.
27. Véga-balá 'pásitayá,
Vényá, Bhaimí yutá lalápá 'sitayá.
"Nripa! sa-calápá 'sitayá
hatwá 'rin, bándhaván cilá 'pási tayá.
28. Sa cat'ham mána-vanánam,
Nyáyavid! ácharasi sévyamána-vanánám,
D'hrita-síma navánám,
Dáránám tyágam, anupamá! 'navanánám.

* RAMA RAJA, by whose command the poem was composed. So the commentators remark: but it remains uncertain who he was, or where he reigned.

28. Para-critam état twénah [tu énah]
Samarámi, tan na smritó 'si mé tattwéna,
Dosha-samétatwêna
pradúshayé ná'tra sambhramé tat twéna! [twa, ina!]"

[See Plate A. Fig. 3.]

'Then the princess wandered in the forest, an abode of serpents, crowded with trees which resound with the sweet buzz of bees, the resort of flocks of birds. With her dark hair dishevelled through her haste, Bhaimí thus lamented:' "King! thou slayest foes, but defendest thy kindred, with thy quiver and thy sword: Unrivalled in excellence and conversant with morality, how hast thou practised the desertion of a wife proud but left helpless in a forest; thus rendering thyself the limit of praise? but I consider this evil to be the act of another; and do not charge thee with it: I do not blame thee, my husband, as in fault for this terror.' 3. 26—29.

In the passage here cited, some variations in the reading, and greater differences in the interpretation, occur: with which it is, however, unnecessary to detain the reader. After consulting several scholia, the interpretation, which appeared preferable, has been selected. The same mode will be followed in subsequent quotations from other poems.

II. *Mátrách'handas* or metre regulated by quantity.

1. Vaita'li'ya.

Another sort of metre, regulated by the proportion of *mátras* or syllabick instants, is measured by the time of the syllables exclusively; without noticing, as in the *Ganach'handas*, the number of feet. It is therefore, denominated *Mátrách'handas*, and the chief metre of this kind is named *Vaitáliya*. It is a tetrastich or strophe of four verses, the first and third containing the time of fourteen short syllables; and the second and

fourth, sixteen. The laws of its construction impose that each verse shall end in a cretic and iambic; or else in a dactyl and spondee *; or, by bacchius †. In regard to the remaining moments, which are six in the odd verses, and eight in the even verses of the strophe, it must be observed as a general rule, that neither the second and third, nor the fourth and fifth moments should be combined in the same long syllable; nor, in the second and fourth verses, should the sixth *mátrá* be combined with the seventh. That general rule however admits of exceptions: and the name of the metre varies accordingly ‡.

ALTHOUGH the *Vaitáliya* regularly consist of alternate short and long verses, it may be varied by making the stanza consist either of four short or four long verses; admitting at the same time the exception just now hinted §.

THE following is an example of a stanza composed in a species of this metre:

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* This variety of the metre is named *A patalica.*

† Thus augmented, the measure is called *Aupach'handasica:* the whole of the last canto of MAGHA's epick poem hereafter mentioned is in this metre: and so is the first half of the 13th canto in BHARAVI's *Cirátarjuniya.*

‡ In the even verses of the strophe, if the 4th and 5th moments be combined in one long syllable, contrary to the general rule abovementioned, the metre is named *Prachya vritti:* or, in the odd verses, if the 2d and 3d moments be so combined, the metre is denominated *Udichya vritti:* or the rule may be violated in both instances, at the same time; and the measure then takes the name of *Pravrittaca.*

§ A tetrastich, consisting of four short verses of the sort called *Pravrittaca,* is named *Charuhasini:* and one comprising four long verses of that description is termed *Aparanta.*

Vaitá'liya (Pravrittaca).

Idam, Bharata-vansa-bhúbhritám,
śruyatám, sruti-manórasáyanam,
pavitram, ad'hicam, subhódayam,
Vyása-vactra-cat'hitam, PRAVRITTACAM.

[SEE PLATE A. Fig. 4.]

"Listen to this pure, auspicious and pleasing history of the kings of the race of BHARATA as uttered from the mouth of VYASA."

HERE, as in most of the examples given by the commentator HELA'YUD'HA, and by other writers on prosody, the name of the metre occurs, but with a different acceptation. Where the stanza has the appearance of being a quotation (as in the present instance), it might be conjectured, that the denomination of the measure was originally assumed from the example; and this conjecture would appear probable, wherever the name (as is frequently the case,) has no radical meaning connected with the subject of metre. But, in many instances, the radical interpretation of the word is pertinent and has obviously suggested its application as a term of prosody; and the stanza, which is given as an example, must therefore have been purposely constructed to exhibit the metre by words in which its denomination is included. This is confirmed by the circumstance of some of the words being incompatible with the measure which they designate: and in such cases the author apologizes on that ground for not exhibiting the name in the example.

THE *Vaitáliya* metre has been employed by some of the most eminent poets; for instance, in the epick poem of MA'G'HA, the 16th canto of which is chiefly in this measure, as the 20th and last canto

is in that species of it which is called *Aupach'handasica*.

THE work here mentioned is an epick poem, the subject of which is the death of S'IS'UPA'LA slain in war by CRISHN'A: it is entitled *S'is'upála-bad'ha*, but is usually cited under the name of its author, whose designation, with praises of his family, appears in the concluding stanzas of the poem. Yet, if tradition may be trusted, MA'G'HA, though expressly named as the author, was the patron, not the poet. As the subject is heroick, and even the unity of action well preserved, and the style of the composition elevated, this poem is entitled to the name of epick. But the *Indian* taste for descriptive poetry, and particularly for licentious description, has disfigured even this work, which is otherwise not undeserving of its high reputation. The two first cantos and the last eight are suitable to the design of the poem. But the intermediate ten, describing the journey of CRISHN'A with a train of amorous damsels, from *Dwáracá* to *Indraprast'ha*, is misplaced, and in more than one respect exceptionable.

THE argument of the poem is as follows. In the first canto, NA'REDA, commissioned by INDRA, visits CRISHN'A and incites him to war with his cousin, but mortal enemy, S'IS'UPA'LA king of the *Chédís*. In the second, CRISHN'A consults with his uncle and brother, whether war should be immediately commenced, or he should first assist YUD'HISHT'HIRA in completing a solemn sacrifice which had been appointed by him: the result of the consultation is in favour of the latter measure: and accordingly, in the 3d canto, CRISHN'A departs for YUD'HISHT'HIRA'S capital. In the thirteenth he arrives and is welcomed by the PA'N'DAVAS. In the following canto, the sacrifice is begun; and, in the next, S'IS'UPA'LA impatient of the divine honours paid to CRISHN'A retires with his partisans from the

place of sacrifice. A negociation ensues; which is however ineffectual, and both armies prepare for action. This occupies two cantos. In the eighteenth both armies issue to the field of battle, and the conflict commences. The battle continues in the next canto, which describes the discomfiture and slaughter of S'IS'UPA'LA's army. In the last canto, the king, grown desperate, dares CRISHN'A to the combat. They engage, and in the *Indian* manner fight with supernatural weapons. S'IS'UPA'LA assails his enemy with serpents, which the other destroys by means of gigantic cranes. The king has recourse to igneous arms, which CRISHN'A extinguishes by a neptunian weapon. The combat is prolonged with other miraculous arms, and finally CRISHN'A slays S'IS'UPA'LA with an arrow.

THE following example is from a speech of S'IS'UPA'LA's embassador, in reply to a discourse of S'ATYAC brother of CRISHN'A, at an interview immediately preceding the battle.

[SEE PLATE A. Fig. 5.]

"A low man, poor in understanding, does not perceive his own advantage: that he should not comprehend it when shown by others, is surprising. The wise of themselves know the approach of danger, or they put trust in others: but a foolish man does not believe information without personal experience. The proposal which I made to thee, CRISHNA was truly for thy benefit: the generous are ready to advise even their enemies bent on their destruction. Peace and war have been offered at the same time by me; judging their respective advantages, thou wilt choose between them. Yet good advice addressed to those whose understanding is astray becomes vain, like the beams of the cold moon directed towards lakes eager for the warm rays of the sun." 16. 39—43.

ANOTHER passage of the same poem is here subjoined as a specimen of a different species of this metre. It is the opening of the last canto; where S'IS'

UPA'LA, impatient of the discomfiture of his troops and of those of his allies, dares CRISHN'A to single combat.

Aupach'handasica.

[SEE PLATE A. Fig. 6.]

Muc'ham ullasita-tri-rec'ham uchchair bhidura-bhrú-yuga-bhishan'an dad'hánah,
Samitáv iti vicramán amrishyan, gatabhír, áliwata Chédirát Murárim.

'Raising his head, and with a countenance terrible by its forked brow and wrinkled forehead, the king of the *Chédis*, impatient of the prowess thus displayed in battle, banished fear, and challenged the foe of MURA to the fight.' 20. 1.

A further example of the same metre is the second stanza of the following extract from the *Cirá'ta'juniya** of BHA'RAVÍ. The remaining stanzas exhibit variety of measure, with two instances of singular alliteration.

THE subject of that celebrated poem is ARJUNA's obtaining celestial arms from S'IVA, INDRA and the rest of the gods, to be employed against DURYO'D'HANA. It is by a rigid observance of severe austerities in the first instance, and afterwards by his prowess in a conflict with S'ÍVA (in the disguise of a mountaineer), that ARJUNA prevails. This is the whole subject of the poem; which is ranked with the *Cumára* and *Raghu* of CA'LIDA'SA, the *Naishad'hiya* of SRÍHARSHA, and MA'GHA's epick poem, among the six excellent compositions in *Sanscrit*. The sixth is the *Méghadúta* also ascribed to CA'LID'ASA; and, on ac-

* ARJUNA and the mountaineer. *Cirata* is the name of a tribe of mountaineers considered as barbarians.

count of its excellence, admitted among the great poems *(Maha'cavya)*, notwithstanding its brevity.

[See Plate A. Fig. 7.]

The stanzas, which contain alliteration, are here copied in Roman characters.

18. Iha durad'higamaih
Cinchid évágamaih
Satatam asutaram
Varn'ayantyantaram.
19. Amum ativipinam
Véda digvyápinam
Purusham iva param'
Padmayónih param.
20. Sulabhaih sadà nayavatá 'yavatá
Nid'hi-guhyacad'hipa-ramaih paramaih
Amuná d'hanaih cshitibhrita 'tibhritá
Samatítya bháti jagatí jagati.

'Then Arjuna, admiring the mountain in silent astonishment, was respectfully addressed by his conductor, Cuve'ra's attendant: for even loquacity is becoming in its season.'

"This mountain with its snowy peaks rending the cloudy sky in a thousand places, is, when viewed, able to remove at once the sins of man. An imperceptible something within it, the wise ever demonstrate to exist by proofs difficultly apprehended. But Brahma' alone thoroughly knows this vast and inaccessible mountain, as he alone knows the supreme soul. With its lakes overspread by the bloom of lotus, and overshadowed by arbours of creeping plants whose foliage and blossoms are enchanting, the pleasing scenery subdues the hearts of women who maintained their steadiness of mind even in the company of a lover. By this happy and well governed mountain, the earth, filled with gems of easy acquisition and great excellence delightful to the god of riches, seems to surpass both rival worlds *." 5. 16—20.

* The first and fourth stanzas, in this quotation, are in the *Drutavilambita* metre, and the fifth in the *Pramita'cshara'*; which

2. MÁTRA-SAMACA.

THE metre denominated *Mátrá'samaca* consists of four verses, each of which contains the quantity of sixteen short syllables; and in which the last syllable must be a long one; and the ninth syllabick moment must be in general detached from the eighth and tenth, and be exhibited of course by a short syllable; if the twelfth be so likewise, the metre is distinguished by another name; or if the fifth and eighth remain short, the denomination is again changed. The last sort of metre is varied by deviating from the rule respecting the ninth moment; and another variety exhibits the fifth, eighth, and twelfth moments by short syllables *. These five varieties of the metre called *Mátrásamaca* may be variously combined in the same stanza; and in that case the measure is denominated *Padaculaca:* a name, which is applied with greater latitude in *Pracrit* prosody, to denote a tetrastich wherein each verse contains sixteen moments, without any other restriction as to the number and place of the long and short syllables.

A POEM inserted in the first volume of Asiatic Researches † is a specimen of the variety, which this sort of metre admits. In a collection of tales entitled *Vétala panchavins'ati*, the author S'IVADA'SA has quoted several stanzas of that poem intermixed with others, in

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will be both noticed under a subsequent head. The third is in an uncommon measure named *Chandrica'* or *Cshama'*.

* The names of these four varieties are 1st, *Vána vásica*, which exhibits the 9th and 12th moments by shorts syllables, and 15th and 16th by a long one: the rest being optional. 2dly, *Chitrá* exhibiting the 5th, 8th, and 9th, by short syllables, the 15th and 16th by a long one, 3dly *Upachitrá*, the 5th, 8th short; 9th and 10th long; also 15th and 16th long. 4thly, *Vis'loca*; 5th, 8th, and 12th short; 15th and 16th long; and the rest indeterminate.

† Page 35.

which the measure is still more varied: and I may here remark, that the introduction of rhyme into *Sanscrit* verse is not peculiar to this anapæstick metre: JAYADE'VA has adopted it with success in several other sorts of lyrick measure; and it is frequent in *Sanscrit* poetry composed in any species of *Pracrit* metre.

3. GÍTYA'RYA'.

ANOTHER species of metre regulated by quantity is named *Gityáryá*. Like the preceding, it is a tetrastich in which each verse consists of sixteen *matras* or moments; but all expressed by short syllables. In other words the stanza contains sixty-four syllables distributed into four verses. From the mixture of verses of this description, with others consisting exclusively of long syllables, arises another metre distinguished into two sorts according as the first couplet in the stanza consists of short syllables and the second of long; or, conversely, the first long, and the second short *. The *Gityáryá* may be further varied by making the last syllable of each couplet long, and all the rest short; at the same time reducing both couplets to twenty-nine moments, or the first only to that measure; and the second to thirty-one: or the first couplet to thirty, while the second contains thirty-two †.

4. *Pracrit* measures.

THE foregoing are all comprehended under the general designation of *Jati:* and besides these, which are

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* The mixed metre, in which one couplet of the stanza contains short syllables, and the other long, is termed *Sic'ha* or *Chu'da:* if the first couplet contain the short syllables, it is denominated *Jyotish*; but is called *Saumya*, or *Anangancrid'a*, when the first couplet consists of long syllables.

† This metre, concerning which authorities disagree, is called *Chu'dica* or *Chuli.a*; or according to the *Vritta Ratnacara*, *Atiruchira*.

noticed in treatises on *Sanscrit* prosody, other kinds, belonging to the class of metre regulated by quantity, are specified by writers on *Pracrit* prosody. They enumerate no less than forty-two kinds, some of which comprehend many species and varieties. The most remarkable, including some of those already described as belonging to *Sanscrit* prosody, are the following, of which instances are frequent in *Pracrit*, and which are also sometimes employed in *Sanscrit* poetry.

A STANZA of four verses, containing alternately thirteen and eleven moments (and scanned 6+4+3 and and 6+4+1) is named either *Dohá* *. (*S. Dwipat'ha*) or *Sorat'tha (S. Saurashṭ'ra)*, according as the long verse precedes the short one, or the contrary. This metre, of which no less than twenty three species bear distinct names, (from 48 syllables to 23 long and two short,) is very commonly used in *Hindi* poetry. As an instance of it, the work of BIHA'RILA'L may be mentioned, which consists of seven hundred couplets *(sat saï)* all in this measure. It is a collection of descriptive poetry; of which CRISHN'A, sporting with RA'D'HA' and the *Gopis*, is the hero. The following example is from that celebrated author.

Macarácrita Gópála cé
  Cun'd'ala jhalacata cána.
D'hasyó manó hiya gad'ha samara:
  D'yód'hi lasata nisána.

[SEE PLATE A. Fig. 8.]

'THE dolphin-shaped ring, which glitters in GOPALA'S ear, may be taken for the symbol of Cupid suspended at the gate, while the god is lodged in his heart.'

To understand this stanza, it must be remarked, that the symbol of the *Indian* Cupid is the aquatick animal

* Corruptly *Dohra*.

named *Macara:* (which has in the *Hindu* Zodiack the place of Capricorn). It is here translated dolphin, without however supposing either the deliverer of ARION, or any species of dolphin (as the term is appropriated in systems of natural history), to be meant.

THE *Gat'ha* or *Gaha* has been already noticed as a name of the *Arya* measure in *Pracrit* prosody. Including under this as a general designation the seven species of it, with all their numerous varieties, it is no uncommon metre in *Pracrit* poetry. A collection of amatory verses ascribed to the famous monarch S'A'LIVA'HANA, comprising seven hundred stanzas* and purporting to be a selection from many thousands by the same author, is exclusively in metre of this kind. The introductory verse intimates, that

"Seven hundred couplets *(gábás)* are here selected out of ten millions of elegant couplets composed by the poet HA'LA'."

HA'LA is a known title of SA'LIVA'HANA, and is so explained both here and in a subsequent passage by the scholiast GANGA'D'HARA BHAT'TA. It is not, however, probable, that he really composed those verses; and it would be perhaps too much to conjecture, that the true author of them was patronised by that monarch whose existence as an *Indian* sovereign has been brought in doubt.

THE metre called *Maharashtra* in *Pracrit*, *Marahat't'a)* is a tetrastich, of which each verse contains 29 *matras*, scanned by one foot of 6 and five of 4; with a terminating trochee. It has pauses at the 18th and 29th *matras*. This measure is evidently denominated from the country, which gives name to the *Marahatta* nation; as another species, beforementioned, takes its

* From their number, entitled *Sat sai*.

designation from *Saurashtra* or *Sorati'ha* *. The circumstance is remarkable.

ANOTHER tetrastich, which it is requisite to notice, is denominated *Rola*. Each verse contains 24 *matras*: and this species of metre admits twelve varieties, from 24 short syllables to 11 long and two short, bearing distinct names.

THE *Shat'padica (Pr. Ch'happäa)* is a stanza of six verses: arranged in a tetrastich and couplet; the first termed *Cavya*, and the second *Ullala*. In the tetrastich, each verse contains 24 moments (scanned 2+ five times 4+2, or else 6+ four times 4+2) with a pause at the 11th moment; and each verse of the couplet contains 28 moments, with a pause at the 15th. The varieties are extremely numerous, according to the number and the places of the long and short syllables. No fewer than forty-five variations of the tetrastich, and seventy-one of the whole stanza, have separate names. They are distinguished by the number of short and long syllables (from 152 short to 70 long and 12 short in the whole stanza, or from 96 short to 44 long and 8 short in the tetrastich). The following example is extracted from the *Pingala-vritti*.

Ch'happäa or *Shat'padica*.

Pind'häu di'd'ha san'n'áha; báha uppara pac'hc'hara daï,
Band'hu samadi, ran'a d'haläu. Sámí Hammí baäna laï,
Uduu na'ha; paha bhamäu; c'haga riu sísa hi jhäläu.
Pac'hc'hara pac'hchara, t'hélli pélli, pabbaä appäräu.
Hammíra cajja Jajjalla bhan'a, cóhád'alá mahu maha jaläu.
Sulatána sísa carabála daï, téjji calévara, dïa chaläu.

* The peninsula, between the gulfs of *Cambay* and *Cutch*. The name remains, but the boundaries of the province are more restricted than in ancient times. It still, however, includes the remains of CRISHNA's city of *Dwa'rca'*; the celebrated temple of *Somana't'ha* so frequently plundered by the *Muhamedans*; and the mountain of *Girana'ra* held sacred by the *Jainas* no less than by the followers of the *Veda*.

[See Plate A. Fig. 9.]

Jajjala, general of Hammíra's forces, taking the field against the *Muhammedan* emperor, says vauntingly

"I put on strong armour, placing barbs on my horse, and taking leave of kinsmen, I hasten to the war. Having received the commands of my master Hammíra, I fly through the sky; I pursue the road; I flourish my scimitar on the head of the foe. Amid the bustle of horse and foot I scale mountains. In Hammíra's cause, Jajjala declares, The fire of wrath burns within me; laying my sword on the head of the Sultan, and abandoning this corporeal frame, I ascend to heaven."

The emperor, whose death was thus vainly promised to Hammíra, by his braggart general, must have been Sulta'n Muhammed Khu'ní, with whom he is stated to have been contemporary; and who reigned from A. D. 1325 to 1351 *. Hammíra was sovereign of *Sácambhari*, which, with unfeigned deference for the opinion of Captain Wilford on a geographical question, I still think to be *Sámbher* †: and for this simple reason; that the culinary salt, brought from the lakes of *Sa'mbher*, is named in *Sanscrit*, *Sa'cambhariya lavana*, answering to the *Hindi Sa'mbher lúun*. It is, however, proper to remark, that maps exhibit a place of the name of *Sambhere* between *Ujjayani* and *Indor*.

The *Utcach'ha'* is a stanza of six verses, each comprising eleven moments (scanned 4+ 4+ 3). It admits eight species from 60 short syllables to 28 long and 10 short.

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* As. Res. Vol. IX. 192.
† As. Res. Vol. VII. p. 511.

Fig. 3.

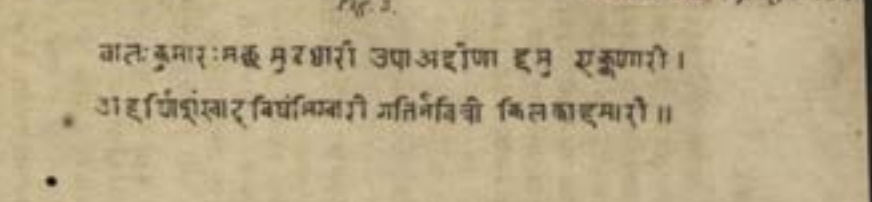

Fig. 4.

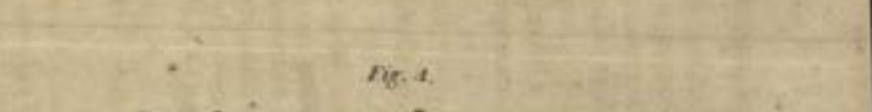

Fig. 5.

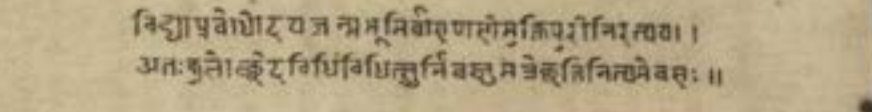

Fig. 6.

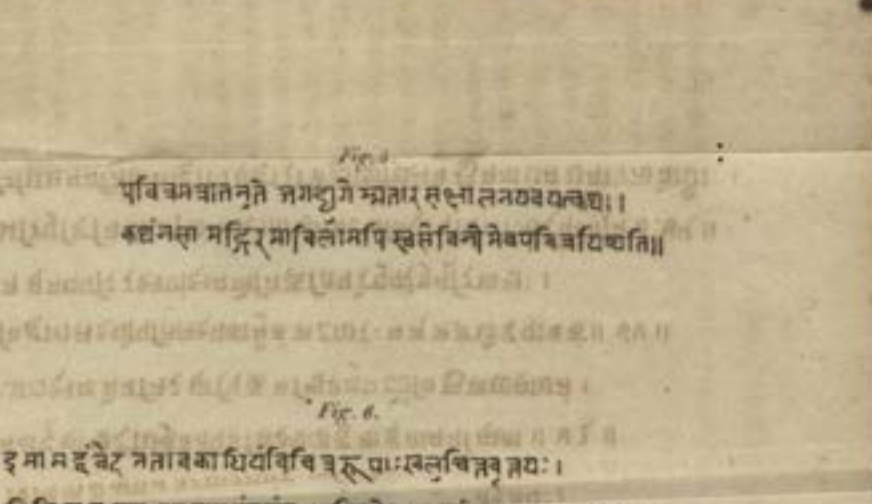

Fig. 1.

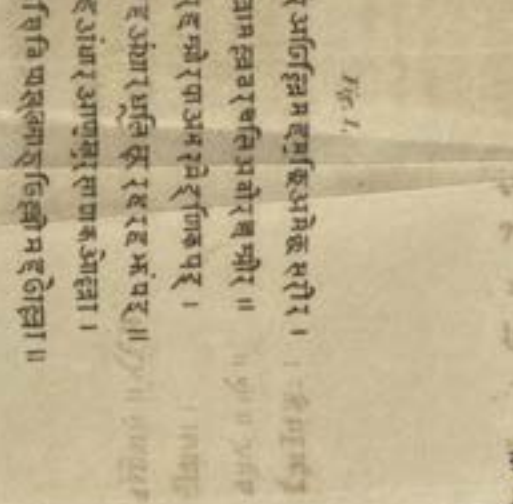

Fig. 2.

THE *Cundalicá* is composed of one stanza of the metre named *Dohá*, followed by another in the measure called *Rolá*. The entire stanza consequently comprises eight verses. In this species of metre, rhyme and alliteration are so appropriate ornaments, that it admits the repetition of a complete hemistich or even an entire verse: as in the following example extracted from the *Pingala vritta*.

Cun'd'alicá or *Cun'd'aliá*.

D'hóllá máïa D'hilli maha, much'hïa Méch'ha saríra,
Pura Jajjallá mala bara, chalïa bira Hammíra.
Chalïa bíra Hammírá, páä bhára méïni campaï.
Diga maga naha and'hára d'húli súraha raha j'hampaï.
Digamaga naha and'hára ánu. C'hurasánaca ólla
Davali, damáfi vipac'hc'ha: máru D'hilli maha d'hóllá.

[SEE PLATE B. Fig. 1.]

'HAVING made the barbarians faint at the sound of the drum beaten in the midst of *D'hilli*, and preceded by JAJJALA eminent above athlets, the hero HAMMÍRA advances; and as the hero HAMMÍRA advances, the earth trembles under his feet. The cloud of dust, raised by the march of his multitudes, obscures the chariot of the sun. Darkness spreads with the march of his multitudes. The hostages of the Khorasanian are slain; the foe is slaughtered; and the drum is beat in the midst of *D'hilli*.'

A STANZA of nine verses, composed of one of five with a tetastrich of the metre called *Dohá* subjoined to it, is denominated *Rad'd'há*. Here the stanza of five contains three verses of 15 moments each, with two of 12 and 11 interposed. The distribution of the feet, together with a restriction as to the terminating one, varies in each verse: and a difference in the regulation of the feet gives rise to six varieties which have distinct appellations.

THE *Chatushpadicá* (Pr. *Chaupaia* or *Chaupái)* is a stanza of sixteen verses distributed into four tetrastichs, in which each verse contains 30 moments (scanned seven times 4-2), and terminated by a long syllable. This measure is of very frequent use in the poetry of the modern languages. The *Rámáyan'a* of TULAS'I DA'SA, in seven cantos, a poem held in great estimation by *Hindus* of the middle tribes, is composed chiefly in a similar metre under the same name *(Chaupái)* and containing the same number of verses (16) in the stanza. It alternates with the *Dohá*; and very rarely gives place in that poem to any other metre.

IN this metre the stanza contains the greatest number of verses of any admitted into *Pra'crit* prosody. The other measures regulated by quantity are tetrastichs, except the *Ghat't'á* and certain other couplets, noticed at the foot of the page*; some of which might have been ranked with more propriety under the next head of uniform metre.

ONE other measure which is placed in this class, but which belongs rather to another, remains to be noticed. It is an irregular stanza of four verses containing alternately 17 and 18 syllables with no regulation of their length or of the quantity of the verse or stanza. It is termed *Gand'ha*, or in *Pracrit Gand'hána*.

THE rest of the *Prácrit* metres may be sought in the synoptical tables subjoined to this essay.

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* The *Ghatta* and *Ghattánanda*, consisting of two verses of 31 *mátrás* each. In the first species the pauses are after the 10th and 18th *mátrás*; in the other after the 11th and 18th. There is also a slight difference in the distribution of the feet (7 times 4 + 3 short; and 6 + 3 times 3 + 5 + 6 + 3 + 3 short.) The *Dwipadicá* has in each verse 28 *ma'tra's* (6 + five times 4 + 1 long.) The *Sic'ha* containing the like number, the *C'hanj'* with 41 *ma'tra's* to the verse, and the *La'la'* with 45, are couplets; but the feet are strictly regulated.

THE present may be a proper place for noticing a class of poetry, which have been even more cultivated in the *Prácrit* and provincial languages than in *Sanscrit*. I allude to the erotick poetry of the *Hindus*.

ON its general character, I shall briefly observe, that it is free from the grievous defects of the *Hindí* poems composed in the stile and metre of *Persian* verse; but it wants elevation of sentiment and simplicity of diction. The passion, which it pictures, is sensual, but the language refined; with some tenderness in the expression and in the thoughts. Among the most celebrated poems in this class, may be mentioned. the *Chaura panchasicá* comprising fifty stanzas by CHAURA, and *Amaru s'ataca* containing twice that number by AMARU. The first is supposed to be uttered by the poet CHAURA, who, being detected in an intrigue with a king's daughter, and condemned to death, triumphs in the recollection of his successful love. The other, which is a collection of unconnected stanzas on amatory topicks, is reputed to be the work of the great SANCARA A'CH'ARYA, composed by him in his youth before he devoted himself to the study of theology.

SOME of the commentators on this poem have attempted to explain it in a devout and mystical sense, on the same principle upon which JAYADE'VA's lyrick poems are interpreted as bearing a religious meaning. The interpretation, however, is too strained to be admitted; and though JAYADE'VA's intention may have been devout, and his meaning spiritual; AMARU, or whoever was the true author of the work bearing this name, is clearly the love of an earthly mistress.

THE most singular compositions in this class of poetry, and for which chiefly a notice of it has been here introduced, are those in which the subject is treated

with the studied arrangement and formal precision of the schools. I shall instance the *Rasamanjari* of BHA'NUDATTA MIS'RA in *Sanscrit*, and the works of MATIRAMA and SUNDARA in *Hindi*. Here various descriptions of lovers and mistresses distinguished by temper, age and circumstances, are systematically classed and logically defined, with the seriousness and elaborate precision of scholastick writers. As ridicule was not intended, these poems are not humorous but trifling: and I should not have dwelt on the subject, if their number and the recurrence of them in different languages of *India*, were not evidence that the national taste is consulted in such compositions.

III. *Varn'a vritta*; metre regulated by the number of syllables.

THE next sort of metre is that, which is measured by the number of syllables: it is denominated *Acsharach'handas* or *Varn'a vritta* in contradistinction to the preceding kinds which are regulated by quantity; and it may be subdivided into three sorts, according as the verses, composing the stanza, are all similar, or the alternate alike, or all dissimilar.

THIS also is a stanza of four verses (*pádas*), each containing an equal number of syllables, the length of which is regulated by special rules. The number of syllables varies from twenty-four, to a hundred and four, in each strophe: this is, from six to twenty-six in each verse. There are indeed names in *Prácrit* prosody for verses from one to five syllables, and instances of *Sanscrit* verse containing a higher number than above stated, viz. from twenty-seven, to one less than a thousand. But these constitute distinct classes of metre. Between the limits first mentioned, twenty-one kinds receive different appellations appropriated to the number of syllables contained in the stanza.

EACH kind comprehends a great variety of possible metres according to the different modes in which long and short syllables, as well as pauses, may be distributed: and since the four quarters of each ſtanza may be either all alike, or only the alternate ſimilar, or all different, the variety of poſſible metres is almoſt infinite. PINGALA, however, gives directions for computing the number of ſpecies, and for finding their places, or that of any ſingle one, in a regular enumeration of them; or converſely the metre of any ſpecies of which the place is aſſigned: and rules have been given even for calculating the ſpace which would be requiſite for writing down all the various ſpecies.

IN the firſt claſs, or kind, wherein the verſe conſiſts of ſix ſyllables, 64 combinations are computed on the ſyllables of each verſe; 4096* on thoſe of the half ſtanza; and 16,777,216† on the 24 ſyllables which conſtitute the complete ſtanza of this claſs. In the laſt of the twenty-one kinds, 67,108,864 combinations are computed on 26 ſyllables within each verſe; nearly 4,503,621,000,000,000,000, on 52 ſyllables; and more than 20,282,388,000,000,000,000,000,000,000,000, on a hundred and four ſyllables which form the ſtanza.‡

THE different ſorts, which have been uſed by poets, are few in compariſon with the vaſt multitude of poſſible metres. Still they are too numerous to be all deſcribed

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* Viz. 64 uniform and 4032 half equal.

† Viz. 64 uniform; 4032 half equal; and 16,773,120 unequal or diſſimilar.

‡ A mode of calculating the poſſible varieties of metre is alſo taught in the *Lila'vati*, a treatiſe of arithmetick and geometry by BHA'SCARA. This truly learned aſtronomer was alſo a poet; and his mathematical works are compoſed in highly poliſhed metre. If the reader figure to himſelf EUCLID in alcaick meaſure, DIOPHANTUS in anapæſt, or the Almageſt verſified with all the variety of *Horatian* metre, he will form an adequate notion of this incongruity.

at full length. I shall therefore select, as specimens, those sorts of metre, which are most frequently employed, or which require particular notice; referring for the rest to the subjoined tables is which the various kinds are succinctly exhibited by single letters descriptive of feet scanned in the *Indian* and in the *Latin* mode.

In the best *Sanscrit* poems, as those of Ca'lida'sa, Bha'ravi', S'ri'harsha, Ma'gha, &c. the poet usually adheres to the same, or at least to similar metre, throughout the whole of the canto;* excepting towards the close of it, where the metre is usually changed in the laſt two or three stanzas, apparently with the intention of rendering the conclusion more impressive. Sometimes indeed. the metre is more irregular, being changed several times within the same canto, or even altering with every stanza.

The *Rághava pándavìya*, by Cavira'ja,† is an instance of a complete poem, every canto of which exhibits variety of metre. This extraordinary poem is composed with studied ambiguity; so that it may, at the option of the reader, be interpreted as relating the history of Ra'ma and other descendants of Das'arat'ha, or that of Yud'hisht'hira and other sons of Pa'ndu. The example of this singular style of composition had been set by Subandhu in the story of *Vásavadattá* and Ba'nabhatta in his unfinished work entitled *Cádambari*; as is hinted by Cavira'ja. Both these works, which like the *Das'acumára* of Dandí, are prose compositions in poetical language,

* Writers on rhetorick (as the author of the *Sáhitya darpan'a* and others) lay it down as a maxim, that the metre and style should in general be uniform in each canto: but they admit occasional deviations in regard to the metre.

† So the author has called himself.

and therefore reckoned among poems, do indeed exhibit continual instances of terms and phrases employed in a double sense: but not, like the *Rághava pándaviya*, two distinct stories told in the same words.

THE following passage will sufficiently explain the manner in which the poem is composed. The first stanza is of the mixed sort of metre named *Upajáti*, which will be immediately described; the second is in one of the measures composing it, termed *Upéndravajra*.

[SEE PLATE B. Fig. 2.]

50 Mátuh s'riyan sandad'had Indumatyáh
S'lághyah s'aratcála invódu panctéh,
Asau, prajápálanadacsha bhávád,
Ajasya chacré manasah pramódam.

51. Vichitravíryasya divan gatasya
Pituh sa rájyam patipadya bályé,
Purím Ayódhyám, Dhritráshtra bhadrám,
Sa Hastisópham suc'ham ad'hyuvása.

"HAVING the beauty of his mother INDUMATÍ, and admirable like the dewy season when it enjoys the beauty of the stars, he (DAS'ARÁ'THA) made glad the mind of AJA* by his skill in the protection of the people. Succeeding in youth to the kingdom of his variously valiant father, who departed for heaven, he dwelt happily in the city of *Ayód'hyá*, which was adorned with elephants and upheld the prosperity of his realm."

OTHERWISE interpreted the same passage signifies

"HAVING the beauty of his mother, and admirable like the dewy season, when it enjoys the beauty of the stars and of the moon, he (PA'NDU) made glad the heart of the unborn god, by his skill in the protection of creatures. Succeeding in youth to the kingdom of his father VICHITRAVÍRYA*

* AJA was father, and INDUMATÍ mother, of DA'SARAT'HA.

who departed from heaven, he dwelt happily in the peaceful city of *Hastinápura* auspiciously inhabited by DHRITARA'SHTRA." 1. 50. and 51.

To proceed with the subject. In general the different sorts of verse, which are contained in the subjoined synoptical table of uniform metre, are used singly, and the stanza is consequently regular: but some of the species, differing little from each other, are intermixed. Thus the *Indravojra*, measured by a dactyl between two epitrites (3d and 2d), and the *Upéndravajra*, which begins with a diiambus, may be mixed in the same stanza. This sort of mixt metre (an example of which has been just now exhibited) is denominated *Upajáti*: it of course admits fourteen variations;* or, with the regular stanzas, sixteen. The relief which it affords from the rigorous laws of the uniform stanza, render it a favourite metre with the best poets. It has been much employed by CA'LIDA'SA, in whose poem on the birth and marriage of PA'RVATI', three out of the seven cantos, which compose it, are in this metre; as are eight out of nineteen in his heroick poem on the glory of the race of RAGHU.

THE last mentioned work, which is entitled *Raghuvans'a*, and is among the most admired compositions in the *Sanscrit* tongue, contains the history of RA'MA and of his predecessors and successors from DILI'PA father of RAGHU, to AGNIVERN'A a slothful prince who was succeeded by his widow and posthumous son. The first eight cantos relate chiefly to RAGHU, with whose history that of his father DILI'PA and of his son AJA, is nearly connected. The next eight concern RA'MA, whose story is in like manner intimately con-

* VICHITRAVI'RYA was husband of PA'NDU's mother.

† They have distinct names, which are enumerated in the *Ch'handomanjari*, cited by the commentator on the *Vrita Ratnácara*: as *Manipraváhá Cántimati*, &c.

nected with that of his father DAS'ARATHA and of his sons CUS'A and LAVA. The three concluding cantos regard the descendants of CUS'A, from ATIT'HI to AGNIVERN'A, both of whom are noticed at considerable length; each being the subject of a single canto, in which their characters are strongly contrasted; while the intermediate princes, to the number of twenty, are crowded into the intervening canto, which is little else than a dry genealogy.

THE adventures of RA'MA are too well known to require any detailed notice in this place. The poet has selected the chief circumstances of his story, and narrates them nearly as they are told in the mythological poems and theogonies; but with far greater poetical embellishments. Indeed the general style of the poems esteemed sacred (not excepting from this censure the *Ramayan'a* of VA'LMI'CI,) is flat, diffuse, and no less deficient in ornament than abundant in repetitions; and it is for this reason, that examples have been selected, for the present essay, exclusively from the celebrated prophane poems. RA'MA's achievements have been sung by the prophane as frequently as by the sacred poets. His story occupies a considerable place in many of the *Pura'n'as*, and is the sole object of VA'LMI'CI's poem, and of another entitled *Ad'hya'tma Ra'ma'yan'a*, which is ascribed to VYA'SA. A fragment of a *Ra'ma'yan'a* attributed to BAUD'HA'YANA is current in the southern part of the *Indian* peninsula; and the great philosophical poem, usually cited under the title of *Yo'ga vasisht'ha*, is a part of a *Ra'ma'yan'a*, comprising the education of the devout hero. Among prophane poems on the same subject, the *Raghuvans'a* and *Bhat't'icâvya*, with the *Rág'hava pa'ndavi'ya* before mentioned, are the moſt eſteemed in *Sanscrit*, as the *Ra'ma'yan'a* of TULAS'I'DA'SA and *Ra'machandrica'* of CE'SAVADA'SA are in *Hindi*. The minor poets, who have employed themselves on the same topick, both

in *Sanscrit* and in the *Pra'crit* and provincial dialects, are by far too numerous to be here specified.

THE other poem of CAÍLIDA'SA abovementioned, though entitled *Cumára sambhava* or origin of CUMA'RA (who is son of PA'RVATÍ), closes with PA'RVATÍ's wedding. It has the appearance of being incomplete: and a tradition runs, that it originally consisted of twenty-two books. However, it relates the birth of the goddess as daughter of mount HIMA'LAYA; and celebrates the religious austerities by which she gained S'INA for her husband; after CANDARHA, or Cupid, had failed in inspiring S'IVA with a passion for her, and had perished (for the time) by the fiery wrath of the god. The personages, not excepting her father, the snowy mountain, are described with human manners and the human form, and with an exact observance of *Indian* costume.

THE following stanza from a poem in mixed language, upon the same subject (the birth of CUMA'RA), is selected as a further example of *Upaja'ti* metre, and as a specimen of the manner in which *Sanscrit* and *Pra'crit* are sometimes intermixed. It is quoted for that purpose in the *Pingala-vritti*.

[SEE PLATE B. Fig. 3.]

Bálah Cumárah; sa ch'ha-mun'da-d'hárí. Upáä-hiná hamu écca-nári.
Ahar-n is'am c'háï visham bhic'hári. Gatir bhavitri hamári.

DE'VI', grieving over her infant son CUMA'RA or SCANDA, says,

"The child is an infant, but he has six mouths [to be fed]: I am a helpless, solitary female: night and day my mendicant

husband swallows poison: what resource is there, alas, for me?"

An instance of the same measure used in the *Marahat'ta (Maha'ra'shtra)* language is quoted by the commentator on the *Vritta-retna'cara*. It appears however, from the rhymes, that the verse is there subdivided by a pause after the 5th syllable.

THE variety of the *Upaja'ti* metre is increased by the further mixture of two sorts of iambic measure named *Vans'ast'ha* and *Indravans'a'*. The first is composed of a choriambus between two diambi; in the second, the first dissyllable is a spondee instead of an iambic. Instances of this mixt metre occur in VA'LMICI's *Ra'm'yan'a*,* in the *Sri-bha'gavata Pura'na* † and in a metaphysical and theological drama entitled *Prabo'd'ha Chandr'odaya* ‡.

THE following example from the drama now mentioned, exhibits the combination of those four sorts of metre in a single stanza.

Vídyá-prabódhódaya-janma-bhúmir, Váránosí mucá puri niratyayá
Atah culóchch'héda vid'him vid'hitsur nivastum atréch'hati nityam éva sah.

[SEE PLATE B. Fig. 4.]

"*Vára'n'asi*, the indestructible city of eternal salvation, is the native land of science and intellect: hence, one desirous of observing the precepts by which a continuance of family is cut off, [and final beatitude obtained], is solicitous to dwell there continually."

* In a passage of the *Sundara Cánda*.

† Book 10th.

‡ Among the persons of this drama are the passions and vices (pride, anger, avarice, &c.) with the virtues, (as pity and patience;) and other abstract notions; some of which constitute very strange personifications. The author was CRISHN'A PANDITA.

THE same term *(Upaja'ti)*, as descriptive of mixt metre, has been also applied to the intermixture of two spondaic measures named *Va'to'rmi* and *Sa'lini:* which are very similar, the first having an anapæst, the other a cretic, between a dispondeus and 2d epitritus, with a pause at the fourth syllable. Analogous to the first of these are the *Rat'hoddhata'*, and *Swa'gata'* measured by an anapæst preceded by two trochees, and followed in the one by two iambics; and in the other by an ionic. These and the preceding are metres in very co. mon use with the best poets: and instances of them, will occur in subsequent extracts chosen for the sake of other measures with which they are joined.

THE several sorts of metre above described are, like the two last, also employed separately: for instance the first cantos of the *Naishad'hya* of S'RI'HARSHA, and *Cira'ta'rjuniya* of BHA'RAVI, as well as that of the epick poem of MA'GHA, are in the iambic measure called *Vans'ast'ha*; which recurs again in other parts of the same poems: especially in the *Cira'ta*, of which four books out of eighteen are in this measure.

THE first of the works just now mentioned is a poem in twenty-two cantos on the marriage of NALA king of *Nishad'ha* and DAMAYANTI daughter of BHIMA king of *Viderbha*. It is a favourite poem on a favourite subject: and though confessedly not free from faults, is by many esteemed the most beautiful composition in the *Sanscrit* language. The marriage of NALA and DAMAYANTI, his loss of his kingdom by gaming, through the fraudulent devices of *Cali* disguised in the human, form, his desertion of his wife and his transformation, her distresses, her discovery of his wife and his transformation, her distresses, her discovery of him, and his restoration to his proper form and to his throne, are related in another poem already noticed under the title of *Nalódaya:* their adventures likewise constitute an

episode of the *Maha'bha'rata*,* and are the subject of a novel in prose and verse, by *Trivicrama b'hatt'a*, entitled *Nalachampú* † or *Damayanti cat'ha'*. SRI HARSHA's poom, though containing much beautiful poetry according to the *Indian* taste, is very barren of incident. It brings the story no further than the marriage of NALA and DAMAYNATÍ, and the description of their mutual affection and happiness which continues notwithstanding the machinations of *Cali*. The romantick and interesting adventures subsequent to the marriage, as told in the *Nalo'daya*, are here wholly omitted; while the poet, with a degree of licentiousness, which is but too well accommodated to the taste of his countrymen, indulges in glowing descriptions of sensual love.

THE following example of *Vans'ast'ha* metre is from the introduction of the *Naishad'hiya*. To render the author's meaning intelligible, it may be necessary to premise, that the mere celebrating of NALA and DAMAYANTÍ is reckoned sufficient to remove the taint of a sinful age; and is so declared in a passage of the *Maha'bha'rata*.

Vans'ast'ha metre.

Pavitram atrátanuté jagad yugé, smritá, rasa-cshálanayéva yat, cat'há;
Cat'ham na sá mad giram, ávilám api, swasévinim éva, pavitrayishyati.

[SEE PLATE B. Fig. 5.]

"How should a story, which, being remembered, purifies the world in the present age, as it were by an actual ablution,

* From the 53d to the 79th chapters of the *Vanaparva*.

† A composition, in which prose and verse are intermixed, is called *Champú*.

fail of purifying my voice, however faulty, when employed on this narration."

In the following passage from Bha'ravi's *Cirátárjuníya*, the last stanza is an example of the *Málini* metre; and the preceding one, of the *Pushpitágra*; which will be noticed further on: all the rest are in the *Vanśast'ha* measure. It is the close of a reproachful speech of Draupádí to her eldest husband Yud'hisht'hira, inciting him to break the compact with Duryód'hana, by which the Pa'ndavas had engaged to remain twelve years in exile.

[See Plate B. Fig. 6.]

"I do not comprehend this thy prudence; for opinions are indeed various: but anguish forces itself on my mind, when considering thy extreme distress. Thou, who didst formerly repose on a costly couch, and wert wakened with auspicious praise and song, now sleepest on the ground strewed with pungent grass, and art roused from thy slumbers by the dismal howlings of shakals. Thy feet, which, resting on a footstool adorned with precious stones, were tinged by the dust of the blossoms in the chaplets worn by prostrate monarchs, now tread the wilderness where the tips of sharp grass are cropped by the teeth of stags. Thy person, O king, which formerly gained beauty by feeding on the blessed remnant of the feast given to holy men, now wastes with thy glory, while thou feedest on the fruits of the forest. That thou art reduced to this condition by the act of thy enemies, harrows up my soul. To the valiant, whose courage is unsubdued by the foe, misfortune is a triumph. Relinquishing peace, O king, be active and rouse thy energy, for the slaughter of thy foes. Placid saints, not kings, attain perfection, disarming their enemies by patience. If persons such as thee, whose honour is their wealth, who are leaders of the brave, submit to such insupportable disgrace, then is magnanimity destroyed without resource. If divested of courage, thou deem submission the means of lasting ease, then quit thy bow, the symbol of a sovereign, and becoming a hermit, feed here with oblations the purifying flame. Adherence to the compact is not good for thee, valiant prince, while thy foes compass thy

disgrace: for kings, ambitious of victory, scruple not the use of stratagem in treating with enemies. Thee, who by force of fate and time art not sunk in the deep ocean of calamity, dull with diminished splendour, and slow to enterprise, may fortune again attend, as thou risest like the sun with the new born day, dispelling hostile gloom." 1. 37.—46.

To return to the enumeration of analogous sorts of metre. A true spondaic metre, named *Vidyunmala*, consisting of four spondees, with a pause in the middle of the verse which virtually divides the tetrastich into a stanza of eight, is often mixed, as before observed, with the metre termed *Gityarya*, containing the same quantity in a greater number of syllables.

OTHER measures also containing the same quantity, but in a greater number of syllables, occur among the species of uniform metre. The subjoined note* exhibits several species, in which the verse is divided by the position of the pauses into two parts equal in quantity, and some of them equal in number of syllables. Further instances are also stated in the notes, of metre containing the same quantity similarly reducible to equal feet †. Some of the species of metre, which contain a greater number of syllables, are reducible, in conformity to the position of their pauses, to this class‡.

**Rucmavati* or *Champacamálá* composed of alternate dactyls and spondees; *Mattá* measured by three spondees with four short syllables before the last; *Pan'ava* containing a spondee and dactyl, and an anapæst and spondee; *Báramaravilasitá* measured by two spondees, four short syllables and an anapæst; *Jalodd'hatangatá* composed of alternate amphibrachys and anapæst, and several other species; as *Curuma vichitra*, *Manigun'a nicara*, *Cudmala danti*, *Lalaná*, &c.

† *Dod'haca* composed of three dactyls and a spondee; *Totaca* containing four anapæsts; *Pramitácshara*, measured by three anapæsts with an amphibrachys for the second foot; *Mala*, a species of *Chandravartá*, and some others.

‡ Thus *Mattácridá* combines two simple kinds, the *Vidyúnmálá* and *Chandravartá*. So *Craunchapada*, is composed of two species beforementioned, the *Champacamálá* and *Manigun'a*.

ALL these varieties of metre have a great analogy to the *Mátrasamaca* and other species before described, which similarly contain the quantity of 16 short syllables or 8 long; reducible to four equal feet.

AMONG the kinds of metre described at the foot of the preceding paragraphs, the *Dód'haca*, *Totaca* and *Pramitácshara* are the most common. A stanza in the anapæstic measure named *Pramitaćshara*, in which each verse exhibits alliteration at its close, has been already quoted from the fifth canto of the *Cirátajunia* of BHÁRAVÍ. The specimen of anapæstic measure *Totaca*, which will be here cited from the close of the *Nalodaya*, is a further instance of alliteration introduced into every stanza of this singular poem.

TOTACA.

Ari-sanhatir asya vanéshu s'uchám padam ápadam ápad amá'padamá.
Suc'hadan cha yat'haívá janáya Harim yatam áyatamáya tamá yata Má.

[SEE PLATE B. Fig. 7.]

"The luckless and despondent croud of his foes found in the forests a calamitous place of sorrow; and prosperity was constant to him, who gave happiness to a sincerely affectionate people, as she clings to HARI, who blesses the guileless." 4. 46.

IT has been before said, that, in several sorts of metre, the pauses would justify the division of the stanza into a greater number of verses than four, and instances have been shown, where either the number of syllables, or the quantity, would be the same in each verse of a stanza of eight, twelve, or even sixteen short verses. In the following species of metre, the verses of the stanza, subdivided according to the pauses, are unequal.

Fig. 1.

ओमित्युक्त्वोऽथशार्ङ्गिणंदृष्ट्वाहृत्याथचंतमस्तस्मिन्नत्यतिरेपुरः सुरमुनावितृप्तिभवति ।
शृण्वणमनिशंविनाशपिमुनःकुर्वन्सचैद्यंपतिंव्याख्योवभुकुटीकुलेनवदनेकेतुश्चशस्त्रम् ॥ ७५ ॥

Fig. 2.

जातवंशेभवनविदितेपुष्कलावर्तकानांजानामित्वापुष्करविपुहुपंकामरूपंमघोनः ।
तस्यार्द्धंत्वंत्वठविधिवशाद्दूरबन्धुर्गतोऽहंयाच्ञामोघावरमधिगुणेनाधमेलब्धकामा ॥ ६
तत्प्राणांस्त्वंसहिशरणंतत्पयोदप्रियायाःसद्यःसेहंधनपतिकोधविश्लेषितस्य ।
गन्तव्यातेवसतिरलकानामयक्षैस्मरणांवाहोद्यानस्थितहरशिरश्चन्द्रिकाधौतहर्म्या ॥ ७ ॥

Fig. 3.

परिमृदितमृणालीमुग्धबालारुणश्रीःकरमपिपरिवारप्रार्थनाविक्रियासु ।
कलयतिबहिरंशोर्निष्कलंकस्यलक्ष्मीमभिनवकरिदन्तक्षेदगौरःकपोलः ॥ २२ ॥

Fig. 4.

अमूनृणेविवशसखःपरंतपःश्रमान्वितोदशरथस्तुराहुतः ।
गुणैर्वरंभुवनहितंकुलेनयंसनातनःपितरमुपागमत्स्वयम् ॥ ९ ॥

Fig. 5.

दैवेपरस्मरनशालिनिहंतजातेयातेचरंपतिरिवप्रतिवस्तुरत्ने ।
कस्मैमनःकथयितासिनिजामवस्थांकष्टोतलैःशमयितावचनैस्त्वधि ॥

Fig. 6.

कन्दर्परूपजगतेतुहुतोहकुलेलोकपकामहमहोवडवीरहोती ।
औमेटिकैविरहपोरनसाउमेरीवैभांतिरूतिपटैंकहिवातगेयो ॥

Fig. 7.

स्वजातीयान्पृथुकृतिमसौल्किकाद्यंतः । स्वातानविवैभिसेवसहजप्राकृतावपि ॥ ३६ ॥ उपकर्त्रायिजातस्त्रिनेविवेणा
पकारिणा । उपकारेणकार्येदिलक्ष्यतेलक्षणेनेतः ॥ ३७ ॥ तथाविप्रकृतकैतोरकिणोहरतादरे बहुमूलस्यमूलेद्द
महद्भिरनेकेश्रियः ॥ ३८ ॥ सधिभोगसुखेनेतुमैश्चिरायपुरोनिमान । प्रोक्तार्थानांक्रियेरन्याकाव्यसंस्तरोमिव ॥ ३९ ॥ अ
लघातमिदंबभोर्वलहरानवाहरत् । कथापिलघुपापानामलंनश्चेदसेयतः ॥ ४० ॥ विशद्वशंवदावाविजद्वाव हृदयंवः
। निर्वक्लेदेरिःकलावानःचतश्चवशःसुतः ॥ ४१ ॥ विद्यावैरंसामवैनसेऽरैवत्रहासते । प्रश्निशेर्द्विवंकसेरेतेनेऽभिमा
नुतम ॥ ४२ ॥ नवात्रनस्यावृत्तावाकासम्यक्तुपःसमो । किंवासमहिदिणविशद्धांकंनेवकः ॥ ४३ ॥ प्रवदावूचुरा
पुरःस्थालालोलेवयोषितः । पश्चकमःपरिभवेदिनांसुरतेषिव ॥ ४४ ॥ मालोवनतःपरवशादुःखदःशोऽपिसोवति । न
ष्यानतनिरोधसुजनोक्रेशकारिणः ॥ ४५ ॥ पादाहतंयदुत्थायमूर्द्धानमधिरोहति । स्वस्थादेवपमानेऽपिदेहिनस्त
दरंरतः ॥ ४६ ॥

Fig. 8.

सत्यानामिवसत्यसंधमनसोरेखेवलेखाकृतेः । सत्यानंदमयीसदाशिवतनोरर्द्धेवगौरीस्थिता ॥ १०३ ॥ सत्यंसत्यमि
मानसं । तथोत्तोऽपवस्तुविशेषसंस्थानसंस्थः ॥ १०४ ॥ विश्वरविरविकरणसंस्तरसंस्तरणसंस्तरसंस्तरसंस्तर

THE *Sárdúlavicrídita*, a very common metre, of which examples occur in the former volumes of Asiatick Researches*, is a tetrastich in which the verse consists of nineteen syllables divided by the pause into portions of twelve and seven syllables respectively. The following instance of this metre is from the close of the first book of MA'GHA's epick poem; where NA'REDA, having delivered a message from INDRA, inciting CRĬSHN'A to war with SIS'UPA'LA, king of the *Chédis*, departs, leaving the hero highly incensed against his kinsman and enemy.

[SEE PLATE C. Fig. 1.]

O'm ityuctavotó't'ha sa'rngin'a, iti
Vyo'hritoa va'chan, nabhas
Tasminn utpatiré purah sura-muna'v
Indo'h s'riyan vibhroti,

S'atru'n'a'm anis'am vina's'a pis'unah,
Crúdd'hosya Chaidyam prati,
Vyo'mni'va, bhrucuti' ch'haléna, vadané
Cétus' chaca'r'a'padam.

'WHILE the divine sage, having delivered this discourse, ascended the sky, bearing on his front the radiance of the moon; the hero, armed with a bow, uttered an expression of assent; and the frown, which found place on his brow wreakful against the prince of the *Chédis*, was as a portent in the heavens, foretokening destruction of his foes.' I. 75.

THE *Manda'cra'nta'*, which is the metre in which the *Még'hadúta* is composed, has pauses suddividing each verse of seventeen syllables into three portions, containing four, six, and seven syllables respectively: viz. two spondees; two pyrrichii and an iambic; a cretic, trochee, and spondee. The *Harin'i'* differs from the preceding in transposing the first and second portions of the verse, and making the third consist of an anapæst between two iambics. An instance of it will be subsequently exhibited.

* Vol. I. p. 279.

THE example of the firſt mentioned metre, here inſerted, is from the *Mégha-dúta*. This elegant little poem, attributed as before obſerved to CA'LIDA'SA, and comprising no more than 116 ſtanzas, ſuppoſes a *Yacsha* or attendant of CUVE'RA to have been ſeparated from a beloved wife by an imprecation of the god CUVE'RA, who was irritated by the negligence of the attendant in ſuffering the celeſtial garden to be trodden down by INDRA's elephant. The diſtracted demigod, baniſhed from heaven to the earth, where he takes his abode on a hill on which RA'MA once ſojourned,* entreats a paſſing cloud to convey an affectionate meſſage to his wife.

Manáácrátá metre.

[See PLATE C. Fig. 2.]

6. Játam vanss'é, bhuvana-vidité, pushcárávartacánám,
Ja'na'mi twa'm, pracriti-purusan, ca'marúpam, Maghónah.
Téna' rt'hitwan, twayi, vid'hi-sasad dúraband'hur, gató-
ham.
Ya'chna' mógha' varam ad'higúné, nad'hamé labd'haca'ma.

7. Santapta'na'n twam asi s'aran'an; tat, payó, priya'ya'h
Sandés'am mé hara, d'hanapati-cród'ha-vis léshitasya,
Gantavya' té vasatir Alaca' na'ma yacshés wara'n'am.
Va'hyódya'na-st'hita-hara-s'iras'-chandrica'-d'hauta-
harmya'.

"I KNEW thee ſprung from the celebrated race of diluvian clouds, a miniſter of INDRA, who doſt aſſume any form at pleaſure: to thee I become an humble ſuitor, being ſeparated by the power of fate from my beloved ſpouſe: a requeſt preferred in vain to the noble is better than ſucceſsful ſolicitation to the vile. Thou art the refuge of the inflamed: therefore do thou, O cloud, convey to my beloved a meſſage from me who am baniſhed by the wrath of the god of riches. Thou muſt repair to *Alacá* the abode of the lord of *Yacshas*, a palace of which the whitened by the moonbeam

* Called *Rámagiri*.

from the crescent on the head of S'IVA, who seems fixed in the grove without." 6 and 7.

THE *Sic'harin'í*, also a common metre, distributes seventeen syllables into portions of six and eleven; an iambic and two spondees in the one, and a tribrachys, anapæst, dactyl, and iambic in the other. This is the metre of the *Ananda lahaaí*, a hymn of which SANCARA'CHA'RYA is the reputed author, and which is addressed to S'IVA', the *Sacti* or energy of SIVA or MAHA'DE'VA. It comprises a hundred stanzas of orthodox poetry held in great estimation by the devout followers of SANCARA: the devotional poetry of the *Hindus* does not usually employ metre of so high an order.

EXAMPLES of this measure will be shown in a subsequent extract from a work of a very different kind: a drama, by BHAVABHU'TI entitled *Málati Mád'hava*.

THE *Málini*, consisting of fifteen syllables, places two tribrachys and a spondee in the one subdivided portion of the verse, and a cretic, trochee, and spondee in the other. An instance of it occurs in a former extract from the *Cirá'ta'rjuniya*. The following example of this metre is from the drama abovementioned. The passage is descriptive of a love-sick maid.

Ma'lini metre.

[See PLATE C. Fig. 3.]

Parimridita-mrin'álí-mlánam angam; prarittih
Cat'ham api parivára-prárt 'hanábhih criyásu.
Calayati cha himáns'ór nishcalancasya lacshmim
Abhinava-cari-danta-chch'héda-cántah capólah.

'Her person is weary like bruised threads of a lotos; scarcely can the earnest intreaties of her attendants incite her to any exertion; her cheek, pale as new wrought ivory, emulates the beauty of a spotless moon.' 1. 22.

THE *Praharshini*, containing thirty syllables, separates a molossus, from two pyrrichii, as many trochees and a spondee. An example of it will be shown in a subsequent extract from BHAVABHU'TI's drama.

THE *Ruchira'*, with the same number of syllables, disjoins two iambics, from two pyrrichii, a trochee and cretic. The opening stanza of the *Bhattica'vya* may serve as an instance of this metre. The poem bearing that title, is on the subject of the adventures of RA'MA: it is comprised in 22 cantos. Being composed purposely for the practical illustration of grammar, it exhibits a studied variety of diction in which words anomalously inflected are most frequent. The style, however, is neither obscure nor inelegant: and the poem is reckoned among the classical compositions in the *Sanscrit* language. The author was BHARTRIHARI: not, as might be supposed from the name, the celebrated brother of VICRAMA'DITYA: but a grammarian and poet, who was son of S'RI'D'HARA SWA'MI, as we are informed by one of his scholiasts VIDYA' VINÓDE.

Ruchira' metre.

[See PLATE C. Fig. 4.]

Abhún nripó, vibud'ha-sac'hah, parantapah, s'rutánwit ó, Das arat'é'ha ityndahritah,
Gunair varam, bhuvana hita-chch'haléna, yam Sanátanah pitaram up'gamat swayam.

'He, whom the eternal chose for a father, that he might benefit the world [in a human form,] was a king, a friend of the gods, a discomfiter of foes, and versed in science: his name was DAS'ARAT'HA. He was a prince eminent for his virtues.' 1. 1.

THE *Suvadana'* distributes twenty syllables in three portions of the verse: one containing two spondees and a bacchius; the second four short syllables and an anapæest;

anapæest; the third a spondee, pyrrichius, and iambic. The *Sragd'harà* a very common metre, differs from it, only in the third portion of the verse, which contains a trochee, spondee, and bacchius: but here the number of syllables in every subdivision is equal: viz. seven. In all the other instances above described, the subdivisions of the regular verses were unequal.

THE following sorts of metre, which are usually employed, have no pauses but at the close of the verse. The *Drata vilambità* contains in each verse two anapæsts preceded by three short syllables and a long one, and followed by a trochee. Instances of this measure have been already cited in an extract from the *Cirâtárjuniya*. The *Sragvini* is measured by a trochee, spondee, and iambic repeated; as the *Bhujangaprayata* is by a similar repetition of an iambic, trochee, and spondee. Both sorts of metre are of frequent occurrence in classick poems.

THE *Vasantatilaca*, which consists of a spondee, iambic, tribrachys, dactyl, trochee, and spondee, is one of the metres in most general use. It commonly occurs as a change from other metre. But the whole 5th canto of MA'GHA's poem is in this measure. The *Chaura panchasica*, a short poem before described, is in the same metre, and so is a pathetick elegy on the death of a beloved wife which occurs in the *Bhamani vilasa* a collection of miscellaneous poetry by JAGANNA'T'HA *Pandita rája*. It begins thus:

Vasantatilaca.

[See PLATE C. Fig. 5.]

'Since fate, alas! is become adverse, and the gem of kindred is departed towards heaven; to whom, O my soul, wilt thou tell thy grief? and who will appease thy anguish with refreshing words?'

THE following passage from some *Hindi* poem, is quoted in NA'RAYAN'A BHAT'T'A'S commentary on the *Vritta Retnacara* as a specimen of this metre in the *Canyacubja* dialect.

[See PLATE C. Fig. 6.]

Candarpa-rúpa jaba tén tumha línha, Crishn'a! Lócópaccáma hama hín, baéu-píra, ch'hórí.
Jau bhét'icain viraha-píra nasáii méri. Yain bhénti dúti path'äi, cahi báta, Gópí.*

"CRISHNA, since thou didſt aſſume the form of Cupid, I have neglected worldly affairs, ſuffering much anxiety. Relieve by thy preſence the pain of ſeparation which I endure. Such was the meſſage, with which the GOPI diſpatched her embaſſadreſs."

V. *Sloca* or *Vactra*.

THE moſt common *Sanscrit* metre is the ſtanza of four verſes containing eight ſyllables each: and denominated from the name of the claſs, *Anushtubh*. Several ſpecies of it have been deſcribed. Two very ſimple kinds of it occur, conſiſting of iambic, or trochaic feet excluſively†. The reſt are included in one general deſignation‡. But ſeveral analogous ſpecies are comprehended under the denomination of *Vactra*. Here the laws of the metre, leaving only the firſt and eighth ſyllables indeterminate, require either a bacchiu

* Short vowels, when final, are ſo faintly ſounded, that they are uſually omitted in writing the provincial languages of *India* in Roman character. But they have been here preſerved at the cloſe of words; being neceſſary, as in *Sanſcrit*, for exhibiting the metre.

† The firſt termed *Pramáni*, the other *Samáni*. Conſidered as a ſpecies of uniform metre, the firſt is alſo named *Nagasvarupini* or *Matallicá*; and the ſecond is denominated *Mallicá*. There is alſo a regular meaſure which alternates trochees and iambics, and is denominated *Manavacácrida*: and another, named *Chitrapada*, conſiſting of two dactyls and a ſpondee.

‡ *Vitana*.

or an ampnibrachys * before the eighth syllable, and forbid an anapæst or tribrachys after the first; as also in the 2d and 4th verses of the stanza, an amphimacer. A variety of this metre introduces a tribrachys before the 8th syllable in the 1st and 3rd verses, and a bacchius in the 2d and 4th†. And another sort‡, which admits five varieties, requires the penultimate syllable to be short in the 2d and 4th verses; and introduces before the 8th syllable of the 1st and third verses, a dactyl, anapæst, tribrachys, amphimacer, or molossus.

THE metre, which is most in use, is one of the species now described, in which the number of syllables is determinate (viz. 8); but the quantity variable. CA'LIDA'SA appropriates to this metre the term *S'loca* (abbreviated from *Anushtubh s'loca)*; and directs, that the fifth syllable of each verse be short; the sixth, long; and the seventh alternately long and short. The mythological poems under the title of *Pura'n'a*, and the metrical treatises on law and other sciences, are almost entirely composed in this easy verse: with a sparing intermixture of other analogous sorts, and with the still rarer introduction of other kinds of metre. The varieties of the *Anushtubh S'loca*, which most frequently occur, make the 5th, 6th, and 7th syllables of the 1st and 3d verses all long or all short; or else the 5th long with 6th and 7th short. Thus varied, it is much used by the best poets. CA'LIDA'SA has employed it in the 2d and 6th cantos of his poem entitled *Cumara sambhava*; and in the 1st, 4th, and several others of the *Raghuvan'a*. The 2d and 10th cantos of MA'G'HA's poems are in this metre, and so is the 11th of the *Cirátarjuniya*.

THE examples, here subjoined, are from MA'G'HA'S poem. One passage is part of a speech of RALARA'MA

* The metre is named *Pathya* when an amphibrachys is introduced in the 2d and 4th verses; some say in the 1st and 3d.

† *Chapalu.*

‡ *Vipula.*

to CRISHN'A, urging him to the immediate commencement of hostilities against SISUPALA: the other is extracted from UDD'HAVA's reply, dissuading CRISHNA from instant war, and advising his previous compliance with YUD'HISHT'HIRA's invitation to assist at a solemn sacrifice which the king was on the point of celebrating at *Indràprast'ha*.

[See PLATE C. Fig. 7.]

BALARA'MA speaks, 'A proved enemy, and a tried friend, are most to be regarded; for they are known by their actions: others, presumed to be so, from temper or affinity, may be found in the end to be friend or foe. Peace may be maintained with a natural enemy, who confers benefits; not with a presumptive friend, who commits outrages; kindness, or injury, is the proper test of both. The king of the *Chédis* was offended, O HARI, by thy seizure of RUCHMINI: for woman is the chief cause, that the tree of discord takes root. Whilst thou wert engaged in subduing the offspring of the earth, he besieged this city, as darkness encircles the skirts of *Méru*, while the sun is remote. To hint, that he ravished the wife of VABHRU is enough: the narration of crimes is too disgustful. Thus aggrieved by thee, and having much injured us, the son of S'RUTAS'RAVAS is an enemy demonstrated by deeds. The man, who is negligent, while an enraged foe meditates aggressions, sleeps in the wind with fire under his arm. What forbearing man, who would cheerfully dissemble a slight and single injury, can patiently endure repeated wrongs. At other times, patience becomes a man; and pudency, a woman: but valour befits the insulted warrior; as modesty should be laid aside by a woman in the nuptial bed. Whoever lives, (may none so live!) tortured by the pain of insults from his enemy; would that he had never been born, vainly giving his mother anguish. Dust, which, kicked by the foot of the traveller, rises and settles on his head, is less contemptible than the dastard, who is contented under wrongs.' 2. 36—46.

UDD'HAVA in reply addressed to CRISHNA.

[See PLATE C. Fig. 8.]

"The just King, and his kinsmen, relying on thee for an associate capable of sustaining the heaviest burden, are willing to undertake the task of a solemn sacrifice. Even to enemies who court them, the magnanimous show kindness; as rivers convey to the ocean the rival torents from the mountains. Violence, used against foes by the strong, is at length successful; but friends, once offended, are not easily reconciled even by compliances. Thou thinkest, that the slaughter of the foe will most gratify the inhabitants of heaven: but far better is it to present offerings, which are desired by the deities, who devour oblations. What the virtuous offer, under the name of ambrosia, in flames, whose tongues are holy prayers, was the splendid ornament of the ocean churned by the mountain *Mandara*. The promise made by thee to thy father's venerable sister, to forgive her son a hundred offences, should be strictly observed. Let the intellect of a good man be sharp without wounding; let his actions be vigorous, but conciliatory; let his mind be warm without inflaming: and let his word, when he speaks, be rigidly maintained. Before the appointed hour, even thou art not able to destroy the tyrant, on whom thyself conferred that boon; no more than the sun can prematurely close the day, which he himself enlightens. 2. 103—110.

V. *Compound metre.*

INSTANCES of compound metre have been already exhibited under the designation of *Upajati*, consisting of two kinds of simple metre variously combined: two of these combinations are repeated under the head of half equal metre with the contrasted names of *Ac'hyanaci* and *Viparitac'hyanaci*. Other species of metre, belonging to this class, are in use among eminent poets; particularly the *Pushpitagra*, and *Aparavactra*. In the first, both verses are terminated by two trochees and a spondee, and begin with four short syllables, one verse interposing a pyrrichius, and the other a dactyl. In the next species, both verses are terminated by three iambics, and begin like the preceding with four short syllables; but one verse interposes a single short syllable, and the other a trochee.

EXAMPLES of the first of these mixed measures are very common. One instance has been already exhibited in a quotation from the 1st canto of BHA'RA'VI''s poem of ARJUNA and the mountaineer. The whole tenth canto of the same poem, and the seventh of MA'GHA's death of S'IS'UPA'LA are in this mixt metre. The second is less common: but an instance occurs in the 18th canto of the *Cirá'ta'rjuníya*.

THE close of the 9th canto of CA'LIDA'SA's *Raghuvans'a*, exhibiting a variety of metre, in which two of the species now mentioned are included, is here cited for the sake of these and of other species which have been before described. The subject is DAS'RAT'HA's hunt, in which he slew the hermit's son: a story well known to the readers of the *Rhámáyan'a*.

[SEE PLATE D. Fig. 1.]

'Thus did the chase, like an artful mistress, allure the king forgetful of all other business, and leaving to his ministers the burden of the state, while his passion grew by indulgence.

'The king, without his retinue, passed the night in some sequestered spot, reposing on a bed of leaves and blossoms, and enlightened by the flame of wild herbs. At dawn, being awakened by the flapping of his elephant's ears in place of the royal drums, he delighted in listening to the sweet and auspicious tones of chirping birds.

'One day, pursuing an antelope, and outstriping his attendants, he arrived, with his horse foaming with fatigue, on the bank of *Tamasá* a stream frequented by the devout. In its waters a deep sound caused by the filling of a vase, was mistaken by the king for the grumbling of an elephant; and he directed an arrow towards the spot whence the sound proceeded. By this forbidden act, * DAS'RAT'HA transgressed: for even the wise, when blinded by passion, deviate into the pathless waste. "Ah father!" was the piteous cry which issued: and the king, anxious, sought its cause among the

* The royal and military tribe is prohibited from killing elephants less in battle.

PLATE D. No. 112.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 12.

Fig. 13.

Fig. 14.

Fig. 15.

Fig. 16.

Fig. 17.

Fig. 18.

Fig. 19.

Fig. 20.

* Sirihavini.

† Sindhula viridilla.

‡ Pothorchini.

§ Haritri.

¶ Vasanta tilaca.

** Mandaravinda.

†† Vantra.

‡‡ Anandabhi.

§§ Aristha or Harati'aga.

¶¶ A very uncommon metre name.

reeds. He found the vase; and, near it, a hermit's son pierced by his arrow; and he stood amazed as if internally wounded. The king, of glorious lineage, who had already alighted from his horse, eagerly inquired the parentage of the youth; who, resting on the vase, with feeble accents said "he was the son of a hermit, but no priest." Instructed by him, the king conveyed the wounded youth to his blind parents: and to them as they approached their only son, he related his mistaken deed. The unhappy pair, lamenting, conjured the king to draw the arrow from the breast of their wounded son. The youth was dead. The aged hermit ratifying his curse with tears instead of water for a libation, pronounced this imprecation on the king. "In thy extreme age thou shalt reach thy fated time, with grief like mine for a beloved son." While he spoke, as it were a serpent assailing first and then discharging fatal venom; CAUSALYA"s lord, conscious of the first offence, addressed him thus: "Thy curse has fallen like a boon on me, who have not seen the beauteous countenance of offspring; as fire, fed with fuel, fertilises the soil which it burns." The king then said, "For me, who merciless deserves death at thy hands, what are thy commands?" The holy hermit asked fuel for the funeral pile; he and his wife resolving to follow their son in death. The king, whose attendants were now arrived, promptly fulfilled his command, and remained dejected, bearing with him the hermit's curse, a cause of his future destruction, as the ocean embraces the devouring fire. Again the king addressed him. "Wise hermit! what shall this shameless criminal, who deserves death from thee, now perform." He desired the funeral flame to be duly lighted: and the king presented the fire for him and his wife and son.

'The chief of the race of RAGHU, attended by his army, now returned to his palace, dejected, bearing in his mind the heavy imprecation of the saint, as the ocean holds within itself the fire of destruction.' 9. 74.—89.

THIS extract exhibits, besides two stanzas of *Puspitagrá** and as many of *Sundari* metre, † both belonging to the present head, and one, of which an example was promised in this place, ‡ several others

* 75 and 76.
† 77 and 79, most properly the last.
‡ *Swágatá* 78.

which have been before exemplified, * and two which are less common. †

A SINGULAR species of variable metre is mentioned by writers on prosody, who describe it as a stanza in which the verses increase in arithmetical progression. In the instance exhibited by them the four verses of the stanza increase regularly from 8 to 20 syllables. Varieties of it are noticed in which the progression is not regular: the short verse exchanging places with the second, third, or fourth. The quantity of the syllables is in general indeterminate: but varieties are stated in which the verse consists of short syllables, either ending, or beginning with a spondee, or both ending and beginning with spondees.

A CLASS of metre, which admits an inordinate length of the verse, is known under the general designation of *Dan'daca*. The verse may consist of any number of syllables from 27 to 999; and the specifick name varies accordingly. ‡ The construction of the metre requires that the six first syllables be short, and the remainder of the verse be composed of cretick feet; or, instead of the cretick foot, the bacchius. These two kinds of metre are distinguished by different names. A verse consisting of any number of anapæsts within the limitation abovementioned, is also comprehended under this general designation; as are verses of similar length consisting exclusively of iambick or trochaick feet. They have their peculiar denominations.

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* *Vasanta tilaca* 81—87 and *Upéndravajra* 88. *Ruchirá* 99.

† *Manjubhásbini* 74 (P. T. D. 3 I.) and *Mattamayúra* 80 (2 S + T. I. D. S.)

‡ For example. *Arna*, which comprises 10 feet; *Aanava* 11; *Vy'ala* 12; *Jimu'ta* 13; &c.

EXAMPLES of these, extravagantly long verses are to be found in the works of the poet VA'NA. It is unnecessary to insert any specimen of them in this place; as an example will occur in a subequent quotation from BHAVABHUTI's drama.

THAT class of metre which is termed half equal, because the alternate verses are alike, comprises various sorts, which appear to be compounded of two simple kinds with an appropriate number of syllables of a determinate quantity.

ANOTHER class, in which every verse of the stanza is different, appear more complex. But, here also, the quantity as well as the number of syllables being regulated, the stanza is in fact composed of four kinds of uniform metre.

THE most common metre of this class is that called *Udgatá*. Here the number of syllables in each verse, as well as their quantity differs; the first verse comprising an anapæst, iambick, tribrachys, and trochee; the second a tribrachys and anapæst with two iambics; the third, a trochee, tribrachys, and two anapæsts*; and the fourth, an anapæst, iambick, and pyrrichius, with three iambicks.

THE 12th canto of the *Cira'ta'rjuniya* is in this metre; and so is the 15th canto of MA'GHA's epick poem. It begins thus:

[SEE PLATE D. Fig. 2.]

"But the king of the *Chédis* was impatient of the honours, which the son of *Pándu* commanded to be shown in that as-

* Or the third verse may consist of a trochee and dactyl, with two anapæsts; or of two trochees, with two anapæsts: and the metre is denominated, in the first instance *Saurabhaca*; in the second, *Lalita*.

sembly to the foe of *Mad'hu*: for the mind of the proud is envious of the prosperity of others."

OTHER kinds of metre, in which every verse of the stanza differs in the number and quantity of syllables, are comprehended under the general name of *Gát'há*; under which also some writers on prosody* include any sort of metre not described by PINGALA, or not distinguished by a specific appellation. The same denomination is applicable also to stanzas consisting of any number of verses other than four †. An instance of a stanza of six verses has been remarked in the *Mahábhárata*; and another example occurs at the beginning of MA'GHA's poem‡.

[SEE PLATE D. Fig. 3.]

Dwidhá critátmá, cim ayam divácaró?
Vid'húma róchih, cim ayam hutás'anah?
Gatan tiraschínam anúru sárat'héh.
Prasidd'ham úrddhajwalanam havirbhujah.
Patatyad'hó dhúma-visári sarvatah.
Cim étad? ityáculam ícshitam janaih.

NA'REDA *descending from the heavens to visit* CRISHNA, *is thus described:*

"Is this the sun self parted into two orbs? It is fire shining with light divested of smoke. The motion of the luminary, whose charioteer has no legs, is distinguished by its curvature. The assent of flame is a known property of fire. Then what is this, which descends diffusing light around?" Thus was the sight contemplated with wonder by the people.' *Mág'ha* 1. 2.

* HELA'YUD'HA and NA'RA'YAN'A-T'ARA'.

† DIVA'CARA on the *Vritta Retnacara*.

‡ It is cited by DIVA'CARA BHATTA as an instance of a stanza of six. Yet the scholiasts of the poem omit the two first verses, and read the stanza as a tetrastich: one commentator, however, does remark, that copies of the poem exhibit the additional verses; and another commentator has joined them with two more verses in a separate stanza.

VI. *Prose; and Verse mixed with Prose.*

I FOLLOW the example of *Sanscrit* writers on prosody, in proceeding to notice the different species of prose. They discriminate three and even four sorts, under distinct names. 1st. Simple prose, admitting no compound terms. It is denominated *Muctaca.* This is little used in polished compositions: unless in the familiar dialogue of dramas. It must undoubtedly have been the colloquial style, at the period when *Sanscrit* was a spoken language. 2d, Prose, in which compound terms are sparingly admitted. It is called *Culaca.* This and the preceding sort are by some considered as varieties of a single species named *Chúrn'icá.* It is of course a common stile of composition: and, when polished, is the most elegant as it is the chastest. But it does not command the admiration of *Hindu* readers. 3d, Prose abounding in compound words. It bears the appellation of *Utcalica praya.* Examples of it exhibit compounds of the most inordinate length: and a single word exceeding a hundred syllables is not unprecedented. This extravagant stile of composition, being suitable to the taste of the *Indian* learned, is common in the most elaborate works of their favourite authors. 4th, Prose modulated so as frequently to exhibit portions of verse. It is named *Vrittagand'hi.* It will occur without study, and even against design, in elevated compositions; and may be expected in the works of the best writers.

SOME of the most elegant and highly wrought works in prose are reckoned among poems, as already intimated, in like manner as the "*Telemache*" of FENELON and "*Tod Abels*" of GESNER. The most celebrated are the *Vasavadatta* of SUBAND'HU, the *Das'a Cumâra* of DAN'DÍ, and the *Cadambari* of VA'NA.

THE first of these is a short romance of which the story is simply this. CANDARPACE'TU, a young and valiant prince, son of CHINTA'NAN'I king of *Cusumapura**, saw in a dream a beautiful maiden of whom he became desperately enamoured. Impressed with the belief, that a person, such as seen by him in his dream, had a real existence, he resolves to travel in search of her, and departs, attended only by his confidant MACARANDA. While reposing under a tree in a forest at the foot of the *Vind'hya* mountains, where they halted, MACARANDA overhears two birds conversing, and from their discourse, he learns, that the princess VA'SAVADATTA', having rejected all the suitors who had been assembled by the king her father for her to make choice of a husband, had seen CANDARPACE'TU in a dream, in which she had even dreamt his name. Her confidant, TAMA'LICA, sent by her in search of the prince, was arrived in the same forest, and is discovered there by MACARANDA. She delivers to the prince a letter from the princess, and conducts him to the king's palace. He obtains from the princess the avowal of her love; and her confidant, CALATI reveals to the prince the violence of her passion.

THE lovers depart together: but, passing through the forest, he loses her in the night. After long and unsuccessful search, in the course of which he reaches the shore of the sea, the prince, grown desperate through grief, resolves on death. But at the moment when he was about to cast himself into the sea, he hears a voice from heaven which promises to him the recovery of his mistress and indicates the means. After some time, CANDARPACE'TU finds a marble statute the precise resemblance of VA'SAVADATTA'. It proves to be her; and she quits her marble form and regains ani-

* Same with *Pat'ali pura* or *Pat'ali putra*; the ancient *Palibothra*, now *Patna*. As. Res. Vol. IV. p. 11.

mation. She recounts the circumstances under which she was transformed into stone.

HAVING thus fortunately recovered his beloved princess, the prince proceeds to his city, where they pass many years in uninterrupted happiness.

THIS story, told in elegant language and intermixed with many flowery descriptions in a poetical style, is the VA'SAVADATTA' of SUBAND'HU. There is an allusion, however, in BHAVABHU'TI's drama *, to another tale of VA'SAVADATTA's having been promised by her father to the king SANJAYA and giving herself in marriage to UDAYANA. I am unable to reconcile this contradiction otherwise than by admitting an identity of name and difference of story. But no other traces has been yet found of the story to which BHAVABHU'TI has alluded.

IN the work above described, as in various compositions of the same kind, the occasional introduction of a stanza, or even several, either in the preface, or in the body of the work, does not take them out of the class of prose. But other works exist, in which more frequent introduction of verse makes of these a class apart. It bears the name of *Champú*: and of this kind is the *Nala Champú* of TRIVICRAMA before mentioned. This style of composition is not without example in *European* literature. The "Voyage de BACHAUMONT et de LA CHAPELE," which is the most known, if not the first instance of it, in *French*, has found imitators in that and in other languages. The *Sanscrit* inventor of it has been equally fortunate: and a numerous list may be collected of works expressly entitled *Champú* †.

* *Malati madha'va.* Act 2d.

† As the *Nrisinha Champu, Ganga Champu, Vrindavanna Champu*, &c.

THE *Indian* dramas are also instances of the mixture of prose and verse; and as already mentioned, they likewise intermixed a variety of dialects. Our own language exhibits too many instances of the first to render it necessary to cite any example in explanation of the transition from verse to prose. In regard to mixture of languages the *Italian* theatre presents instances quite parallel in the comedies of ANGELO BEOLCO surnamed RUZANTI:* with this difference, however, that the dramas of RUZANTI and his imitators are rustic farces; while the *Indian* dramatists intermingle various dialects in their serious compositions.

NOTWITHSTANDING this defect, which may indeed be easily removed by reading the *Prácrit* speeches in a *Sanscrit* version, the theatre of the *Hindus* is the most pleasing part of their polite literature and the best suited to the *European* taste. The reason probably is, that authors are restrained more within the bounds of poetic probability, when composing for exhibition before an audience, than in writing for private perusal or even for public recital.

THE *Sacuntalá* by CA'LIDA'SA, which certainly is no unfavorable specimen of the *Indian* theatre, will sufficiently justify what has been here asserted. I shall conclude this essay with a short extract from BHAVABHU'TI's unrivalled drama, entitled *Málatimád'hava*; prefixing a concise argument of the play, the fable of which is of pure invention.

'BHU'RIVASU, minister of the king of *Padmávatí*, and DE'VARA'TA in the service of the king of *Viderbha*, had agreed, when their children were yet infants, to cement a long subsisting friendship, by the intermarri-

* WALKER's poem on *Italian* tragedy.

age of MA'LATÍ daughter of the first with MA'D'HAVA son of the latter. The king having indicated an intention to propose a match, between BHU'RIVASU''S daughter, and his own favourite NANDANA, who was both old and ugly, the minister is apprehensive of giving offence to the king by refusing the match; and the two friends concert a plan with an old priestess, who has their confidence, to throw the young people in each other's way, and to connive at a stolen marriage. In pursuance of this scheme, MA'D'HAVA is sent to finish his studies at the city of the *Padmávatí* under the care of the old priestess CAMANDACÍ. By her contrivance, and with the aid of MA'LATÍ's foster sister LAVANGICA', the young people meet and become mutually enamoured. It is at this period of the story, immediately after their first interview, that the play opens. The first scene, which is between the old priestess and her female pupil AVALÓCITA, in a very natural manner introduces an intimation of the previous events, and prepares the appearance of other characters, and particularly a former pupil of the same priestess named SAUDA'MINÍ, who has now arrived at supernatural power by religious austerities; a circumstance which her successor AVALÓCITA has learnt from CAPA'LACUN'DALA' the female pupil of a tremendous magician AGHÓRAGHAN'TA who frequents the temple of the dreadful goddess near the cemetery of the city.

'THE business of the play commences; and MA'D'HAVA, his companion MACARANDA, and servant CALAHANSA appear upon the scene. MA'D'AVA relates the circumstances of the interview with MA'LATÍ, and acknowledges himself deeply smitten. His attendant produces a picture which MA'LATÍ had drawn of MA'D'HAVA, and which had come into his hands from one of her female attendants. In return MA'D'HAVA delineates the likeness of MA'LATÍ on the same tablet

and writes under it an impassioned stanza. It is restored; and being in the sequel brought back to MALATÍ, their mutual passion, encouraged by their respective confidants, is naturally increased. This incident furnishes matter for several scenes. Mean time, the king had made the long expected demand; and the minister has returned an answer that "the king may dispose of his daughter as he pleases." The intelligence reaching the lovers throws them into despair. Another interview in a public garden takes place by the contrivance of CA'MANDACÍ. At this moment, a cry of terror announces that a tremendous tiger has issued from the temple of S'IVA: an instant after, NANDANA'S youthful sister MADAYANTICA' is reported to be in imminent danger. Then M'AD'HAVA'S companion, MACARANDA, is seen rushing to her rescue. He has killed the tiger. He is himself wounded. This passes behind the scenes. MADAYANTICA', saved by the valour of MACARANDA, appears on the stage. The gallant youth is brought in insensible. By the care of the women he revives: and MADAYANTICA' of course falls in love with her deliverer. The preparations for M'ALATÍ'S wedding with NANDANA are announced. The women are called away. MA'D'HAVA in despair resolves to sell his living flesh for food to the ghosts and malignant spirits as his only resource to purchase the accomplishment of his wish. He accordingly goes at night to the cementery. Previous to his appearance there, CAPA'LACUN'D'ALA', in a short soliloquy, has hinted the magician's design of offering a human sacrifice at the shrine of the dreadful goddess, and selecting a beautiful woman for the victim. MA'D'HAVA appears as a vender of human flesh; offering, but in vain, to the ghosts and demons the flesh off his limbs as the purchase of the accomplishment of his wish. He hears a cry of distress and thinks he recognises the voice of MA'LATÍ. The scene opens, and she is discovered dressed as a

victim, and the magician and sorceress preparing for the sacrifice. They proceed in their dreadful preparatives. MA'D'HAVA rushes forward to her rescue: she flies to his arms. Voices are heard, as of persons in search of MA'LATÍ. MA'D'HAVA, placing her in safety, encounters the magician. They quit the stage fighting. The event of the combat is announced by the sorceress, who vows vengeance against MA'D'HAVA for slaying the magician her preceptor.'

THE fable of the play would have been perhaps more judiciously arranged if this very theatrical situation had been introduced nearer to the close of the drama. BHAVABHU'TI has placed it so early as the fifth act. The remaining five (for the play is in ten acts) have less interest.

'MA'LATÍ who had been stolen by the magician while asleep, being now restored to her friends, the preparations for her wedding with NANDANA are continued. By contrivance of the old priestess, who advised that she should put on her wedding dress at a particular temple, MACARANDA assumes that dress and is carried in procession, in place of MA'LATÍ, to the house of NANDANA. Disgusted with the masculine appearance of the pretended bride, and offended by the rude reception given to him, NANDANA to have no further communication with his bride, vows and consigns her to his sister's care. This of course produces an interview between the lovers, in which MACARANDA discovers himself to his mistress: and she consents to accompany him to the place of MA'LATÍ's concealment. The friends accordingly assemble at the garden of the temple: but the sorceress, CAPA'LACUNDALA', watches an opportunity, when MA'LATÍ is unprotected, and carries her off in a flying car. The distress of her lover and friends is well depicted: and, when reduced to despair,

being hopeless of recovering her, they are happily relieved by the arrival of SAUDA'MINÍ, the former pupil of the priestess. She has rescued MA'LATÍ from the hands of the sorceress, and now restores her to her despairing lover. 'The play concludes with a double wedding.'

FROM this sketch of the story it will be readily perceived, that the subject is not ill suited to the stage: and making allowance for the belief of the *Hindus* in magick and supernatural powers, attainable by worship of evil beings as well as of beneficent deities, the story would not even carry the appearance of improbability to an *Indian* audience. Setting aside this consideration, it is certainly conducted with art; and, notwithstanding some defects in the fable, the intereſt upon the whole is not ill preserved. The incidents are striking. The intrigue well managed. As to the style, it is of the highest order of *Sanscrit* composition: and the poetry, according to the *Indian* taste, is beautiful.

I SHALL now close this essay with the promised extract from the play here described. It contains an example, among other kinds of metre, of the *Dan'daca* or long stanza: and is selected more on this account than as a fair specimen of the drama. This disadvantage attends all the quotations of the present essay. To which another may be added: that of a prose translation, which never conveys a just notion of the original verse.

Extract from *Málatí Mád'hava*. Act 5.

M'D'HAVA *continues to wander in the cemetery.*

" Human flesh to be sold: unwounded real flesh from the members of a man. Take it. Take it. *"

* *Anushtubh.* [See PLATE D. Fig. 4.]

'How rapidly the *Pais ácbas* flee, quitting their terrifick forms. Alas! the weakness of these beings.'

He walks about.

'The road, of this cemetery is involved in darkness. Here is before me "the river that bounds it; and tremendous is the roaring of the stream, breaking away the bank, while its waters are embarrassed among the fragments of skulls, and its shores resound horribly with the howling of shakals and the cry of owls screeching amidst the contiguous woods. *"

Behind the scenes.

'Ah! unpitying father, the person, whom thou wouldest make the instrument of conciliating the king's mind, now perishes.'

MA'D'H. *listening with anxiety.*] "I heard a sound piercing as the eagle's cry; and penetrating my soul as a voice but two well known. My heart feels rent within me; my limbs fail; I can scarcely stand. What means this †?"

'That pitious sound issued from the temple of CA'RA'LA'. Is it not the resort of the wicked? a place for such deeds ‡? Be it what it may; I will look.'

He walks round.

The scene opens; and discovers CAPA'LA'CUN'D'ALA' *and* AGHORAGHANTO, *engaged in worshipping the idol: and* MA'LATÍ *dressed as a victim.*

MA'L.] 'Ah unpitying father! the person, whom thou wouldest make the instrument of conciliating the king's

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* *Sardula vicridita.* [SEE PLATE D. Fig. 5.]

† *Mandacranta.* [SEE PLATE D. Fig. 6.]

‡ The *Pracrit* original of this passage, though prose, is too beautiful to be omitted.

Há jadada n'carun'a! esó dán'i n'arenda-chittárábóbaäran'anj aón bibajjaï. Há amba sinéhamaähiaé! tum api hadási debba dubbila-sidéna. Há Máladímaä-jívidé, mama cal'ánasábanécca-suha-saäla-bbábáré, bhaävadi! chirassa jánábidási ducc'ham sinéhéna. Há pïa sahi Lavangïé! sivina-ávasara-mètta dansaná aham dè sambutta.'

mind, now perishes. Ah fond mother! thou too art slain by the evil sport of fate. Ah venerable priestess; who lived but for MA'LATI; whose every effort was for my prosperity; thou hast been taught by thy fondness, a lasting sorrow. Ah gentle LAVANGICA'! I have been shown to thee but as in a dream *.'

MA'D'H.] 'Surely it is she. Then I find her living.'

CAPA'LACUN'DALA' *worshipping the idol* CARA'LA'.] 'I bow to thee, divine CHA'MUN'DA'.'

"I revere thy sport, which delights the happy court of S'IVA, while the globe of the earth, sinking under the weight of thy stamping foot, depresses the shell of the tortoise and shakes one portion of the universe, whence the ocean retires within a deep absys that rivals hell †."

"May thy vehement dance contribute to our success and satisfaction; amidst the praise of attendant spirits astonished by the loud laugh issuing from thy necklace of heads which are animated by the immortalizing liquid that drops from the moon in thy crest fractured by the nails of the elephant's hide round thy waist, swinging to the violence of thy gestures: while mountains are overthrown by the jerk of thy arm, terrible for the flashes of empoisoned flame which issue from the expanded heads of hissing serpents closely entwined. The region of space mean time are contracted, as within a circle marked by a flaming brand, by the rolling of thy head terrifick for the wide flame of thy eye red as raging fire. The stars are scattered by the flag that waves at the extremity of the vast skeleton which thou bearest. And the three-eyed god exults in the close embrace of GAURI frightened by the cries of ghosts and spirits triumphant ‡."

They both bow before the idol.

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* *Vactra.* [SEE PLATE D. Fig. 7.]

† *Sardula vicridita.* [SEE PLATE D. Fig. 8.]

‡ The original stanza is in *Dan'daca* metre; of the species denominated *Prachita* and *Sinhavicranta.* The verse contains 18 feet (2 Tra. 16 C.) or 54 syllables, and the stanza comprises 216 syllables. [SEE PLATE D. Fig. 9.]

MA'D'H.] 'Ah! what neglect.

"The timid maid, clad as a victim in clothes and garlands stained with a sanguine die, and exposed to the view of these wicked and accursed magicians, like a fawn before wolves, is in the jaws of death; unhappy daughter of the happy BHU'RIVASU. Alas! that such should be the relentless course of fate *."

CAPA'L.] 'Now, pretty maid, think on him who was thy beloved. Cruel death hastens towards thee †.'

MA'LATI.] 'Beloved MAD'HAVA! remember me when I am gone. That person is not dead, who is cherished in the memory of a lover.'

CAPA'L.] 'Ah! enamoured of MA'D'HAVA she will become a faithful dove. However that be, no time should be lost.'

AGHORA, *lifting up the sword.*] "Divine CHA'MUN'DA! accept this victim vowed in prayer and now offered to thee ‡."

MA'D'H. *rushing forward raises* MA'LATI *in his arms.*] 'Wicked magician! thou art slain.'

CAPA'L.] 'Avaunt villain. Art thou not so.'

MA'L] 'Save me, prince!' *She embraces* MA'D'HAVA.

MA'D'H.] 'Fear nothing. "Thy friend is before thee, who banishing terror in the moment of death has proved his affection by the efforts of despair. Cease thy trembling. This wicked wretch shall soon feel the retribution of his crime on his own head ||."

AGHORA.] 'Ah! who is he that dares to interrupt us?'

CAPA'L.] 'Venerable Sir! he is her lover; he is MA'D'HAVA, son of CA'MANDACI's friend, and a vender of human flesh.'

MA'D'H. *in tears.*] 'How is this? auspicious maid!'

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* *Sardula vicridita.* [SEE PLATE D. Fig. 10.]
† *Praharshini.* [SEE PLATE D. Fig. 11.]
‡ *Praharshini.* [SEE PLATE D. Fig 12.]
|| *Harini.* [SEE PLATE D. Fig. 13.]

M'L. *sighing.*] 'I know not; Prince! I was sleeping on the terrace. I awoke here. But how come you in this place?'

MA'D'H. *blushing.*] "Urged by the eager wish that I may be blessed with thy hand, I came to this abode of death to sell myself to the ghosts. I heard thy weeping. I came hither." *

MA'L.] 'Alas! for my sake wert thou wandering regardless of thyself!'

MA'D'H.] 'Indeed, it is an opportune chance.

"Having happily saved my beloved from the sword of this murderer, like the moon's orb from the mouth of devouring *Rábu*, how is my mind distracted with doubt, melted with pity, agitated with wonder, inflamed with anger, and bursting with joy." †

AGHOR.] 'Ah! thou *Bráhmen* boy! "Like a stag drawn by pity for his doe whom a tiger has seized, thou seized thy own destruction, approaching me engaged in the worship of this place of human sacrifice. Wretch! I will first gratify the great mother of beings with thy blood flowing from a headless trunk."]

MA'D'H.] 'Thou worst of sinful wretches! "How couldst thou attempt to deprive the triple world of its rarest gem, and the universe of its greatest excellence, to bereave the people of light, to drive the kindred to desperation, to humble love, to make vision vain, and render the world a miserable waste!" **

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* *Vasanta tilaca.* [See PLATE D. Fig. 14.]
† *Sárdúla vicridita.* [See PLATE D. Fig. 15.]
‡ *Sa'du'la vicridita.* [See PLATE D. Fig. 16.]
§ *Sac'harini.* [See PLATE . Fig. D. 17.]
** A very uncommon metre named *Avitat'ha* or *Narcut'aca.* [See PLATE D. Fig. 18.]

'Ah wicked wretch! "Hast thou dared to lift a weapon against that tender form, which even shrunk from the blow of light blossoms thrown in merry mood by playful damsels. This arm shall light on thy head like the sudden club of YAMA." *

AGHÓR.] 'Strike, villain! Art thou not such?'

MA'L. to MA'D'H.] 'Be pacified, dear MA'D'HAVA! The cruel man is desperate. Abstain from this needless hazard.'

CAPA'L. to AGHÓR.] 'Venerable sir, be on your guard. Kill the wretch.'

MA'D'H and AGHÓR, *addressing the women.*] "Take courage. The wretch is slain. Was it ever seen that the lion, whose sharp fangs are fitted to lacerate the front of the elephant, was foiled in fight with deer." †

A noise behind the scenes. They listen.

'Ho! ye guards who seek MA'LATÍ. The venerable and inerring CA'MANHACÍ encourages BHÓRIVASU and instructs you to beset the temple of CARA'LA'. She says this strange and horrid deed can proceed from none but AGHÓRAGHANT'A; nor can aught else, but a sacrifice to CARA'LA', be conjectured.'

AGHÓR.] 'Now is the moment which calls for courage.'

MA'L.] 'Oh father! Oh venerable mother!'

MA'D'H.] 'Tis resolved. I will place MA'LATÍ in safety with her friends, and slay this wicked sorcerer.'

CAPAL'.] 'We are surrounded.'

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* *Vasanta tilaca.* [See D PLATE. Fig. 19.]

MA'D'H *conducts* MA'LATÍ *to the other side, and returns towards* AGHÓRAGHANT'A.

AGHÓR.] 'Ah wretch! "My sword shall even now cut thee to pieces, ringing against the joints of thy bones, passing instantaneous rapidity thy tough muscles, and playing unresisted in thy flesh like moist clay." *

They fight. The scene closes.

* *Sic'harini.* [See PLATE D. Fig. 20.]

SYNOPTICAL TABLES

OF

INDIAN PROSODY.

Feet used in Sanscrit Prosody.

TRISYLLABIC.

M. — — — MOLOSSUS. M.

Y. ⏑ — — BACCHIUS. B.

R. — ⏑ — CRETICUS *s.* AMPHIMACER. C.

S. ⏑ ⏑ — ANAPÆSTUS. A.

T. — — ⏑ ANTIBACCHIUS *s.* PALIMBACCHIUS v. HYPOBACCHIUS. H.

J. ⏑ — ⏑ AMPHIBRACHYS *s.* SCOLIUS. Sc.

Bd. ⏑ ⏑ DACTYLUS. D.

N. ⏑ ⏑ ⏑ TRIBRACHYS TR.

MONOSYLLABIC.

L. ⏑ BREVIS. BR. *G.* — LONGUS. L.

Feet used in Pra'crit Prosody.

1. c. One *Cálá* or *Mátrá*
Sara: BREVIS ⏑ BR.
2. c. Two *Mátrás* or *Calás*.
Hára'. LONGUS — L.
Supriyà: PYRRHICHIUS *s.* PERIAMBUS, ⏑ ⏑ P.
3. c. Three *Mátrás* or *Calás*.
Talá: TROCHÆUS — ⏑ T.
Dwaja: IAMBUS ⏑ — I.
Tán'dava: TRIBRACHYS ⏑ ⏑ ⏑ TR.
Haya: *Mátrás* or *Calás*.
Carn'a: SPONDÆUS — — S.
Payód'hara: SCOLIUS ⏑ — ⏑ Sc.
Hasta: ANAPÆTUS ⏑ ⏑ — A.
Charan'a DACTYLUS — ⏑ ⏑ D.
Vipra: PROCEUSMATICUS ⏑ ⏑ ⏑ ⏑ Pa.
Indrásano; 5, c. Five *Mátrás* or *Calás*.
CRETICUS C. BACCHIUS B. PÆON PÆ. &c.
Svrója: 6. c. Six *Mátrás* or *Calás*.
MOLOSSUS M. &c.

Metre of the Védas; regulated by the number of syllables.

Seven classes subdivided into eight orders.

CLASSES.

ORDERS	*Gáyatri.*	*Ushnih.*	*Anushtubh.*	*Vrihati.*	*Pancti.*	*Trishtubh.*	*Jagati*
A'rshá,	24	28	32	36	40	44	48
Daivi,	1	2	3	4	5	6	7
A'suri, 1	5	14	13	12	11	10	9
Prájápatyá,	8	12	16	20	24	28	32
Yajush,	6	7	8	9	10	11	12
Sáman,	12	14	16	18	20	22	24
Rich,	18	21	24	27	30	33	36
Bráhmi,	36	42	48	54	60	66	72

Distribution of the Syllables in Triplets, Tetrastichs, &c

I. Ga'tatri'.

1. Tripad, - - 8 × 3 = 24
2. Chatushpad, - 6 × 4 = 24
3. Pádanivrit, - 7 × 3 = 21
4. Atipádanivrit, 6 + 8 + 7 = 21
5. Nági, - - 9 + 9 + 6 = 24
6. Várahi, - - 6 + 6 + 9 = 24
7. Bardhmána, - 6 + 7 + 8 = 21
8. Pratisht'há, - 8 + 7 + 6 = 21
9. Dwipádviráj, - - 12 + 8 = 21
10. Tripádviráj, - 11 × 3 = 22

II. Ushnih.

1. Tripád, (12 + 8 + 2)
1. *Cacubh*, - - 8 + 12 + 8 = 28
2. *Pura Ushnih*, 12 + 8 + 4 = 28
3. *Paroshnih*, - 8 + 8 + 12 = 28
2. Chatushpád, - - 7 × 4 = 28

III. Anusht'ubh.

1. Chatushpád, - - 8 × 4 = 32
2. Tripád, (8 + 12 × 2). viz. 12 + 8 + 12. + or 12 + 12 + 8. + 12 + 12 = 32.

IV. Vrihati.

1. Chatushpád, - - 9 × 4 × =3(
2. - - - 8 × 2 + 10 × 2 = 3(
3. - - - 8 × 3. + 12 =3(
1. *Pat'hyá*, - 8 + 8 + 12 + 8 = 3(
2. *Nyancusarim (Scand'hogriva o Urovrihati,)* 8 + 12 + 8 + 8 = 3(
3. *Uparishtadvrihati*, 8 × 3 + 1 = 36
4. *Purastadvrihati*, 12 + 8 × 3 =
3. Mahavrihati, (Satovrihati,) 1 × 3 = 36

V. Pancti.

1. Chatushpád, (12 × 2 + 8 × 2).
1. *Satah.p.* - - 12 + 8 + 12 + 8 = 40 or 8 + 12 + 8 + 12 = 4(
2. *Astara-p* 8 + 8 + 12 + 12 = 4(
3. *Prastara-p* 12 + 12 + 8 + 8 = 40
4. *Vistara-p* - 8 + 12 + 12 + 8 = 40
5. *Sanstára-p.* 12 + 8 + 8 + 12 = 40

2. 1. *Acsharapaneti*, 5×4=20
2. *Alpasahpancti*, 5×2=10
3. *Padapancti*, - 5×5=25
4. - - - 4+6+5×3=25
3. Pat'hyá, - - - 8×5=40
4. Jagati, - - - - 8×6=48

VI. TRISHTUBH.

1. Jyotishmati, 11+8×4=43
2. Jagati, - - 12+8×4=44
- *Purastádjyotishmati*, 11 (12) +8×3
Mad'hyá, 8+8+11 (12) +8+8
Uparishtád, 8+8+8+8+11(12)

Deficient and exuberant Metre.

1. Sancumati, =5+a×3 ex. (Gáyatri) 5+6×3=23.
2. Cacudmati, =6+a×3
3. Pipilica mad'hyá, = (Tripád) = many+few+many ex. 8+4+8.
4. Yavamad'hyá, =(Tripád)=few+many+few ex. 8+10+8.
5. Nivrit, =a—1 ex. (Gáyatri) 24—1=23.
6. Bhurij, =a+1 ex. (Gáyatri) 24+1=25.
7. Viráj =a—2 ex. (Gáyatri) 8+8+6=22.
8. Swaráj, =a+2 ex. (Gáyatri,) 8+8+10=26 *.

1 *Gan'avritta of Panscrit Prosody, and Ma'travritta of Pra'crit Prosody; regulated by quantity.*

1. A'RYA' or *Gát'há* Pr. *Gáhá*. 30+27=57 c.
Odd verse: 30 c. =7½ ft. (6th= Sc. or Pr.)
Even verse: 27 c.=7½ ft. (6th= Br).
Each verse ends in L.
Pause in 1st verse before 7th ft. if Pr. But if 6th ft. be Pr. then pause after 1st syllable.
Pause in 2d verse before 5th ft. if Pr.
16 Species: *Pat'hyá*: Pause after 3d. ft. (3+4½=7½ ft. & 12 +18+12+15=57c.) *Vipula*: Pause placed otherwise. Hence *A'divipula*, *Antyavipula*, and *Ubhayavipula*, with 1st verse, 2d, or both, irregularly divided by the pause. *Chapalá* 1st f. S. or A. 2d Sc. 3d S. 4th Sc. or D. 6th Sc. or. (in the short verse, Br). 7th S. D. A. or Pr. Hence *Muc'hachapalá*, *Jag'hanya chapulá* and *Mahachapala*, with 1st, 2d or both verses so constructed. Therefore *A'ryá*+3 *Chapalás*× *Pat'hyá*+3 *Vipulás*=16 species.

* If there be room to doubt whether the metre be reduced from the next above, or raised from the next below, the first verse determines the question; for it is referred to the class to which the first verse or *páda* belongs. If this do not suffice, the metre is referred to that class, which is sacred to the deity, to whom the prayer is addressed. Should this also be insufficient, other rules of selection have been provided. Sometimes the metre is eked out by substituting *iya* or *uva* for correspondent vowels. This in particular, appears to be practised in the *Sámaveda*.

Variations: *A'ryá*, 1st verse 10800. 2d verse 6400. *Chapalá* 1st verse 32, 2d verse 16.

In *Prácrit* prosody, 27 species: from 27 L. +3 Br.=30 syll. to 1 L. and 55 Br.=56 syll.

Specifick varieties. *Culiná* containing 1 Sc. *Culat'há*, 2 Sc. *Vesyá*, many Sc. *Ran'dá*, no Sc. *Gurvin'i*, Sc. 1st, 3d, 5th or 7th ft. But this is against rule: which excludes amphibrachys from the odd feet.

2. UDGITI or *Vigát'há* Pr. *Viga'ha'*. 27+30=57c. viz. 12+15+12+18.

3. UPAGITI Pr. *Gi'hu*. 27+27=54 c. viz. 12+15+12+15.

4. GITI or *Udgá't'ha'* Pr. *Uggá'ha'*. 30+30=60 c. viz. 12+18+12+18.

5. A'RYA GITI or *C'hand'haca* Pr. *Scand'ha*. 32+32=64 c. 8 ft. complete. (3+5'=8f. and 12+20+12+20=64 c).

Species 16 (*Pat'hyá* &c), variations of each verse 10800.

In *Prácrit* prosody, 28 species from 28 L. & 8 Br. to 1 L. and 62 Br.

6. *Chandrica'*, *Sangiti* or *Gát'hini* Pr. *Gáhni* 30+32=62 c. viz. 12+18+12+20.

7. *Sugiti*, or *Parigiti* Pr. *Sinhini* 32+30=62 c. viz. 12+20+12+18.

Also 6. *Sangiti*, 32+29=61 c. *A'ryá* (7½ ft.) + L. in both verses.

7. *Sugiti*, 32+27=59 c. L. in first verse only.
8. *Pragiti*, 30+29=59 c. + L. in second verse only.
9. *Anugiti*, 27+32=59 c. Reverse of *Sugiti*.
10. *Manjugiti*, 29+30=59 c. Reverse of *Pragiti*.
11. *Vigiti*, 29+=58 c. Upagiti + L. in both verses.
12. *Charugiti*, 29+32=61 c. Reverse of Sangiti.
13. *Vallari*, 32+30=62 c. A'ryagiti—L. in last verse.
14. *Lalitá*, 30+32=62 c. —L. in first verse.
16. *Pramadá*, 29+27=56 c. Upagiti + L. in first verse.
16. *Cuandricá*, 27+22=56 c. + L. in last verse.

All these kinds admit 16 species as above: viz. *Pat'hyá*, &c

II. *Ma'tra' vritta or Matra' ch'handas, of Sanscrit Prosody.*

1. VAITA'LIYA, 56 to 68 c.
   1. *Vaitaliya*, 14+10+14+16=60 c.
      End in C. + 1.
      Short syllables by pairs (even verses not to begin with 2 TR).
   2. *Apátàlica*, End in D. & S.
   3. *Aupacchandasica*, 16+18+16+18=68 c. End in C. & B.

   Each kind admits 8 varieties of the short verse & 13 of the long; from 3 long syll. to 6 short beginning the one, and from 4 long syll. to 1 long & 6 short in the other.

   Also the following species under each kind.
   1. *Dacshinántiká*, begin with 1.

Comprising 2 varieties of the odd verses. I. I. (or Tr.); and 4 of the even verses. I. B (or Pæ. 2d or 4th or 5 Br.)

2. *Udichya vritta*, odd verses begin with I.
3. *Práchya vritta*, even verses C. or Pæ. 4.
4. *Pravrittaca*, the 2 preceding combined.
5. *Aparanticá*, 16 × 4 = 64 c. (*Prách*).
6. *Cháruhásini*, 14 × 4 = 56 c. (*Udich*).

2. Ma'tra' samaca, 16 (4 × 4) × 4 = 64 c. End S. or A. Begin S. A. D. or Pr.

1. *Mátrá samaca*, 2d. ft. S. A. or D. 3d. ft. A.
2. *Vis'loca*, 2d Sc. or Pr. 3d. S. or D.
3. *Vánavisácá*, 2d S. A. or D. 3d Sc. or Pr.
4. *Chitrá*, 2d Sc. or Pr. 3d A. Sc. or Pr.
5. *Upachitrá*, 2d S. A. or D. 3d S. or D.
6. *Pádáculaca*, the above intermixed.

The 1st species admits 24 varieties; the 2d, 32; & the 3 next, 48 each. The variations of the last species are very numerous.

3. Gitya'rya' or *Achalad'hriti*, 16 + 4 All short syllables.
4. Dwic'handaca; or Couplet.
   1. *Sic'há* or *Chudá*, 32 Br. + 16 L.
   2 species: *Jyotish* 1st verse 32 Br. 2d 16 L.
   Saumyá or *Árangácridá* 1st verse 16 L. 2d 32 Br.
   Also 1 *Sic'ha* 30 + 32 = 62 c.
   1st Verse 28 Br. + L. 2d 30 Br. L. +.
   2. *Chanja*, 32 + 30 = 62 c. 1st 30 Br. + L. 2d 28 Br. + L.
   3. *Chulica* or *Atiruchira* 29 + 29 = 58 c. 27 Br. + L.
   Also 3 *Chulica* 29 + 31 = 60 c. 1st Verse 27 Br. + L. 2d 29 Br. + L.

III. *Matra vritta of Pracrit prosody continued from Table* I.

8. *Doha* S. Dwipat'ha, 13 + 11 + 13 + 11 = 48 c. 3 ft. viz. odd verses 6 + 4 + 3. even verse 6 + 4 + 1. 23 species from 23 L + 2 Br. to 48 Br.
9. Utcach'ha Pr. *Uccach'ha*, 11 × 6 = 66 c. 6 verses, 3 ft. each 4 + 4 + 3. 8 species from 66 Br. to 28 L + 10 Br.
10. Rola or Lola, 24 × 4 = 96 c. Pause 11 + 13. Usually end in L.
12 species from 12 L to 24 Br.
11. Gandha Pr. *Gandhana*, 17 + 18 + 17 + 18 = 70 Syll.
12. Chatushpada or Chatushpadica Pr. *Chaupaia Chaupaa*, 30 × 4 × 4 = 480 c. 16 verses; 7½ ft. 4 × 7 + L.
13. Ghatta & Ghattananda, 31 × 2 = 62 c. 10 + 8 + 13 = 4 × 7 + 3 Br. or 11 + 7 + 13 = 6 + 3 × 3 + 5 + 4 + 3 + 2 + 2 Br.
14. Shat'pada or Shat'padica Pr. *Ch'hapaa*, 96 + 56 = 152 c.

Cavya 24 (11+13=6+4×4 +2 Br).+4=96, Ullala 28 (15 + 13) × 2 = 56. Varieties of the Tetrastich 45 from 96 Br. to 44 L + 8 Br. Varieties of the whole stanza 71 from 70 L +12 Br. to 152 Br.

15. Prajjatica Pr. *Pajjalia*, 16 ×4=64 c. 4 ft. End in Sc.

16. Atiliha At'hilla Pr. *Atila* 16×4=64c. No Sc. End in P.

17. Padaculaca Pr. *Culapaa*, 16×4=64c. 6+4×2+2 L.

18. *Radda* stanza of nine= 116 c.
viz. 1st=15 c.=4 ft. viz. 3+4 =4+4. End in Sc. or Pr.
2d=12 c.=4 ft. End in Pr.
3d=15 c. End in D.
4th=11 c. =3 ft. End in Tr.
5th=15 c. End in D.
6th to 9th=Doha as before.
5 species.

19. Padmavati Pr. *Pauma*, 32×4=128 c. 8 ft. no Sc.

20. Cundalica Pr. *Cundalia*, stanza of eight=142 c.
Doha + Rola or Cavya.

21. Gagan'angana, 25 ×4 = 100 c. 20 syll. viz. 5 L & 15 Br. End in I.

22. Dwipadi or Dwipada, 28 ×2=56 c. 6½ ft. viz. 6+4+5 +L.

23. C'hanja, 41×2=82 c. 10 ft. viz. 1 Pr. + C.

24. S'ic'ha, 28×2=56 c. 7 ft. viz. 6 Pr. + Sc. See Sanscrit metre.

25. Mala, 45×2=90 c. 11 ft. viz. 4×9+c.+S.
Also 25. Mala 45+27=72 c. 1st verse as above, 2d verse *A'rya*.

26. Chudicala Pr. *Chulisla*, 29 ×2=58 c. Half the Doha+5.

27. Saurashtra Pr. *Soratt'ha*, 11+13+11+13=48 c. Reverse of the Doha.

28. Hacali, 14×4=56 c. 3½ ft. viz. 4 ×3+L. 1 syll. 11 or 10). ft. D.
Pr. or A. sometimes S. Not end in P. S.

29. Mad'hubhava, 8 × 4 = 32 c. 2. ft. End in Sc.

30. Abhira, 11 ×4=44 c. 7 + Sc. or D. +I + Sc. or Sc. + Tr. +Sc.

31. Dan'dacala, 32×4=128c. 4×4+ 6+2+8 or 10+8+ 14. End in L.

32. Dipaca, 10×4=40. c. 4+5+Br. usually end in Sc.

33. Sinha'valoca Pr. *Sinhalac* 16×4=64 c. 4 ft. A. or Pr. but end in A.

34. Plavangama Pr. *Paranga-ma*, 21 ×4=84 c. 6 × 3 + 1. Begin with L.

35. Lila'vati, 24 or less × 4= 96 or less. 6 ft. or less: not end in A.

36. Harigita, 28×4=112c. 5+6+5×3+ L. Should begin with Pr. and end in S.

37. Tribhangi, 32×4=128 c. 8 ft. No Sc. End in L.

38. Durmila' or Durmilica', 32×4=128 c. 10+8+14. ft. 8.

39. Hira or Hiraca, 23 × 4 = 92. c. 4 ft. viz. 6×3+5. ft. 6 Br. or 1 L. with 4 Br. End in L.

40. Jalad'hara or Jalaharana', 32×4=128 c. Pauses 10+8+6+8. ft. 8 Generally Pr. End in A.

41. Madanagriha or Madana-hara', 40×4=160 c. 10+8+14+8=40.

42. Maha'ra'sht're Pr. *Mara-hat't'a*, 29×4=116 c. 10+8+11+ or 6+4×5+ L. + Br.
Also the following kinds:

43. Ruchira', 30×4=120 c. 7½ ft. end in L.

44. Calica', 14×4=56 c. Pauses 8+6.

45. Va'san'a, 20×4=80 c. 4 ft. End in C. Pause before the last.

46. Chaurola, 16 + 14 + 16 +14=60 c. ft. A. or Pr.

47. Jhallana', 37×4= 148 c. 7½ ft 5×7 + L. Pauses 10+ 10 +10+7.

48. Ashad'ha, 12+7+12+7 =38 c.

49. Ma'lavi, 16 + 12+ 16 + 12=56 c. Long verses 4 ft. short verse end in L.

50. Matta', 20 × 4 = 80 c. 5 ft. no Sc.

51. Rasamala, 24 ×4 = 96 c. 6 ft'

52. Avalambaca, 13 × 4 = 52 c. 3 ft. 4 × 2 + 6. End in L.

IV. *Metre regulated by number of Syllables.*

Vactra, 8×4=32 syll. 2 ft. between 2 syll. The species vary in the 2d ft. or 3d place.

1. Simple *Vactra.* L. or Br. + M. &c. (except Tr. & A. and, in the even verse, C). + B. + L. or Br. Therefore 1st 4th & 8th syll. either long or short. 5th short. 6th & 7th long. Either 2d or 3d long.

Variations of the 1st verse 24; of the 2d 20.

2. *Pat'hyá.* 1st verse as above; 2d with Sc. for 2d ft. Hence 7th syll. short.

3. *Viparita pat'hya.* The preceding transposed.

4. *Chapala.* 1st verse with Tr. for 2d ft. Therefore 6th & 7th syll. short.

5. *Vipula.* 2d verse (some say 1st, others all) with 7th syll. short. Therefore 2d ft. D. Sc. H. or Tr.

5 or 7 species: *Bha-vipula.* 1st verse (some say either) with D. for 2d ft. *Ra-vipula,* with C. for 2d ft. *Navipula,* 2d ft. Tr. *Ta-vipula,* 2d ft. H. *Ma-vipula,* 2d ft. M. *Ya-vipula,* 8d ft. B. *Javipula,* 2d ft. Sc.

No instance occurs with an anapæst for the 2d ft. or 3d place.

V. *Acshara ch'handas or Varn'a vritta. Metre regulated by number and quantity.*

Regular or uniform metre; the stanza being composed of equal and similar verses. From one to five syllables in the verse, or from four to twenty in the stanza.

I. 'UCTA' or UCT'HA. 1 × 4 = 4.

1. Sri, *g.* = L. 2 Mahi, *l.* = Br.

II. ATYUCTA'. 2 × 4 = 8.

1. Stri, or Cama, 2 *g.* = *S.* 2. Rati, or Mahi, *l. g.* = I. 3 Saru, *g. l.* = T. 4. Madhu, Pr. *Mahu*, 2 *l.* = P.

III. MADHYA'. 3 × 4 = 12.

1. Nari, or Tali, *m.* = M. 2 Sas i, Pr. *Sasi*, *y.* = B. 3. Priya, Pr. *Pia*; or Mrigi, *r.* = C. 4. Raman'i, or Raman'a, *s.* = A. 5. Panchala, or Panchala, *t.* = H. 6. Mrigendra, Pr. *Mainda*, *j.* = Sc. 7. Mandara, *bh.* = D. 8. Camali, or Camala, *n.* = Tr.

IV. PRATISHT'HA' 4 × 4 = 16.

1. Canya, or Tirna, Pr. *Tinna*, *m. g.* = 2 S. 2. Ghari, or Harica, *r. l.* = 2 T. 3. Nagalica; Lagalica, Nagani, or Naganica, Pr. *Magania*, or *Nagani*, *j. g.* = 2 I. 4. Sati, *n. g.* = P. I.

V. SUPRATISHT'HA' 5 × 4 = 20.

1 Panc'ti, Acsharapancti, or Hansa, *bh.* 2. *g.* = D. S. 2. Sammoha, *m.* 2 *g.* = M. S. 3. Haritabandha, or Hari, 2 *g. l.* 2 *g.* or *t.* 2 *g.* = S. B. 4. Priya, 2 *l. r.* = A. I. 5. Yamaca, Pr. *Jamaca*, *n.* 2 *l.* = P. Tr.

From six to twenty-six syllables in the Verse.

1. GA'YATRI. 6 × 4 = 24.

1. Tanumad'hya, *t y.* = S P S. 2. Vidyullec'ha, or Sesha, Pr. *Sesa*, 2 *m.* = 3 S. 3. Sasivadana, or Chauransa, *n y* = 2 P S. 4. Vasumati, *t s* = S P I. 5. Vanita, or Tilaca, Pr. *Dilla*, 2 *s* = 2 A. 6. Yodha, or Dwiyod'hi, Pr. *Vijoha*, 2 *r.* = T S I. 7. Chaturansa, Pr. *Chauvansa*, *n y* = 2 P S. 8. Mant'hana, or Camavatara, (half of the *Saranga*), 2 *t s* = S I T. 9. Sanc' hanari or Somaraji, (half of the *Bhujangaprayata*), 2 *y* = I T S. 10. Malati, Sumalati, Vasanta, or Caminicanta, 2 *j* = I P T. 11. Damanaca, 2 *n* = 3 P.

II. USHNIH 7 × 4 = 28.

1. Cumaralatita, (2 + 5) *j s g* = I + Tr. S. 2. Madalech'a, *m s g* = S D S. 3. Hansamala, *s r g* = A T S. 4. Mad'humati, 2 *n g* = 2 P A. 5. Sumanica, *r g l* = 2 T C. 6. Suvasa, *n j l* = 2 P D. 7. Carahancha, *n s l*

= 2 P Sc. 8. Sirsha, Pr. [illegible], 2 *m g* = 2 S M.

III. Anushtubh 8 × 4 = 32.

1. Chitrapada, 2 *bh.* 2 *g* = 2 D S. 2. Vidyunmala, Pr. *Bijjumala*, (4 + 4‡) 2 *m* 2 *g* = 2 S + 2 S. 3. Manavaca, or Manavacrida, (4 + 4 †) *bh. t l g* = T I + T I. 4. Hansaruta, *u n* 2 *g* = S D B. 5. Pramanica, Nagaswarupini, or Matallica, *j r l g* = 4 I. 6. Samanica, or Mallica, *r j g l* = 4 T. 7. Vitana, *j t* 2 *g* = 2 I T S. 8. Tunga, 2 *n* 2 *g* = 3 P S. 9. Camala, 2 *l n r.* = 2 P 2 I. 10. Hansapadi, 2 *g m s* = 2 S T I. 11. Matangi, *m* 2 *l m* = S T I S. 12. Rambha, *n l g m* = 2 P 2 S.

IV. Vrihati 9 × 4 = 36.

1. Halamuc'hi, (3 + 6), *r n s* = C + 2 P I. 2. Bhujagasisusrita, (7 + 2), 2 *n m* = 2 P A + S. 3. Bhadrica, *r n r* = 2 T A I. 4. Mahalacshmi, 3 *r* = T S B I. 5. Sarangi, or Sarngi. *n y s* = 2 P S A. 6. Pavitra, Pr. *Pavitta*, *mbh. s.* = 2 S P A. 7. Camala, 2 *n s* = 3 P A. 8. Bimba, *n s y* = P Tr. T S. 9. Tomara, *s* 2 *j* = A I P T. 10. Rupamali, *r m* = 3 S M. 11. Manimad'hya or Manibandh'ha, *bh. r s* = D 2 T I. 12. Bhujangasangata, *s j r* = A 3 I.

V. Pancti 10 × 4 = 40.

1. Sudd'haviraj, *m s j g* = S T 3 I. 2. Panava, (5 + 5), *m n y g* = S D + A S. or *m n j g* = S D + A I. 3. Mayurasarini, *r j r g* = 4 T S. 4. Matta, (4 + 6), *m bh. s g* = 2 S + 2 P S. 5. Upast'hita, (2 + 8) *t* 2 *j g* = 8 + 2 A I. 6. Rucmavati or Champacamala (5 + 5 §). *bh. m s g* D S + D S. 7. Manorama, *n r j g.* = P 4 I. 8. Sanyucta, P. *Sanjunta*, *s* 2 *j g* = P 2 T 2 I. 9. Saravati, 3 *bh. g* = 2 D T I. 10. Sushama, *t y bh. g* = S A S A. 11. Amritamati or Amritagati, *n j n g* = P A P A. 12. Hansi, (4 + 6), *m bh. m g* = 2 S Tr. S 13. Charumuc'hi, *n y bh. g* = P, A S A. 14. Chandramuc'hi, *t n bh. g* = S P 2 A.

VI. Trishtubh 11 × = 44.

1. Indravajrá, 2 *t j* 2 *g* = S I D T S. 2. Upendravajra, *j t j* 2 *g* = 2 I D T S. 3. Upajáti, or Ac'hyánaci, (14 species.) *The two foregoing intermixed.* 4. Dod'haca, Band'hu or Nilaswarupa, 3 *bh.* 2 *g* = 3 D S. 5. Salini, (4 + 7 †), *m* 2 *t* 2 *g* = 2 S + C T S. 6. Vatormi, (4 + 7 †), *m bh. t* 2 *g* = 2 S + A T S. 7. Bhramaravilasita, (4 + 7 †), *m bh. n l g* = 2 S + 2 P A 8. Rat'hod'dhata, *r n r l g* = 2 T A 2 I. 9. Swagata, *r n bh.* 2 *g* = 2 T A P S. 10. Vrinta or Vritta, (4 + 7 †), 2 *n s* 2 *g* = 3 P A S. 11. Syenica, or Srenica, *r j r l g* = 4 T C. 12. Sumuc'hi, (5 + 6 ‡), *n* 2 *j l g* = P A + 2 A. 13. Bhadrica, 2 *n r l g* = 2 P A 2 I. 14. Maucticamala, Sri, Anucula or Cudmaladanti, (5 + 6), *bh. t n* 2 *g* = D S + 2 P S. 15. Upast'hita, *j s t* 2 *g* = I Tr. S T S. 16. Upachitra or Visesh'ica, 3 *s l g* = 3 A I. 17. Cupurushajanita, 2 *n r* 2 *g* = 2 P A I S. 18. Anavasita, *n y bh.* 2 *g* = 2 P S D S. 19. Mot'anaca, *t* 2 *j l g* = S 3 A. 20. Malatimala, 3 *m* 2 *g* = 4 S M. 21. Damanaca, *r n l g* = 4 P A. 22. Madand'ha, *m s j* 2 *g* = S 2 T S.

VII. Jagati 12 × 4 = 48.

1. Vansas'tha or Vans'ast'havila, *j t j r* = 2 I T 3 I. 2. In-

dravans'a, 2 *t j r* = S I T 3 I. 3. Upajati, *the two foregoing intermixed.* 4. Tot'aca, 4 *s* = 4 A. 5. Drutavilambita, *n* 2 *bh r* = P I 2 A I. 6. S'riputa or Puta, (8 + 4), 2 *n m y* = 3 P S + T S. 7. Jalodd'hatagati, (6 + 6), *j s j s* = I P I + I P I. 8. Tata or Lalita, 2 *n m r* = 3 P 2 S I. 9. Cusumavichitra, (6 + 6), *n y n y* = 2 P S + 2 P S. 10. Chanchala'cshica, Pramudvitavadana, Mandacini, Gauri or Prabha, (7 + 5), 2 *n* 2 *r* = 2 P A + B I. 11. Bhujangaprayata, 4 *y* = I T S I T S. 12. Sragvini or Lacshmid'hara, 4 *r* = T S I T S T. 13. Pramitacshara, *s j* 2 *s* = A Sc. 2 A. 14. Cantotpada or Jaladharamala, (4 + 8), *m bh. s m* = 2 8 + 2 P 2 S or *bh. m s m* = D S D 2 S. 15. Vais'wadevi, (5 + 7), 2 *m* 2 *y* = M S + T S B. 16. Navamalini, (8 + 4), *n j bh. y* = 2 P 2 T + P S. 17. Chandravartma, (4 + 8 ‡), *r n bh. s* = 2 T + P D A. 18. Priyambada, *n bh. j r* = P I P 3 I. 19. Manimala, (6 + 6), *t y t y* = S P S + S P S. 20. Lalita, *t bh. j r* = S I P 3 I. 21. Ujjwali, 2 *n bh. r* = 3 P T 2 I. 22. Malati or Varatanu, (5 + 7), *n* 2 *j s* = P A + A 2 I. 23. Tamarasa or Lalitapada, *n* 2 *j y* = 2 P 2 D S. 24. Lalana, (5 + 7) *bh. m* 2 *s* = D S + D T I or *bh. t n s* = D S + 2 P A. 25. Drutapada, *n bh. n y* = P I 3 P S. 26. Vidyad'hara, (4 + 8), 4 *m* = 2 S + 4 S. 27. Saranga, 4 *t* = S I T S I T. 28. Maucticadama, 4 *j* = I P T I P T. 29. Modaca, 4 *bh.* = 4 D. 30. Taralanayani, 4 *n* = 6 P.

VIII. Atijagati, 13 × 4 = 52.

1. Praharshini, (3 + 10) *m n j r g* = M + 2 P 2 T S. 2. Ruchira, or Atiruchira, (4 + 9) *j bh. s j g* = 2 I + 2 P T C. 3. Mattamayura, or Maya, (4 + 9) *m t y s g* = 2 S + T I D S. 4. Gauri, 2 *n* 2 *r g* = 3 P T S B. 5. Manjubhashini, Prabod'hita, Sunandini, or Canacaprabha *s j s j g* = A I + P 3 I. 6. Chandrica, Cshama, Utpalini, or Cut'ilagati, (7 + 6) 2 *n* 2 *t g* = P A + T S I. 7. Calahansa, Chitravati, or Sinhanada, *s j* 2 *s g* = P 2 T P D S. 8. Chancharicavali, *y m* 2 *r g* = I 2 S C T S. 9. Chandralec'ha, (6 + 7) *n s r v g* = 2 P I + 2 T M. 10. Vidyut, (6 + 7) *n s* 2 *t g* = 2 P I + S I C. 11. Mrigendramuc'ha, *n* 2 *j r g* = P A P 2 T S. 12. Taraca, 4 *s g* = 3 A P S. 13. Calacanda, or Canda 4 *y l* = B I T S I T. 14. Pancajavali, or Pancavali, *bh. u* 2 *j l* = D 2 P 2 D. 15. Cdandi, 2 *n* 2 *s g* = 4 P D S. 16. Prabhavati, (4 + 9) *t bh. s j g* = S I + 2 P T C.

IX. Saccari, 14 × 4 = 56.

1. Asambad'ha, (5 + 9) *m t n s* 2 *g* = M S + 2 P A S. 2. Aparajita, (7 + 7) 2 *n r s l g* = 2 P A + I A I or *s n r s l g* = P T A I A I. 3. Praharanacalita, or Calica, (7 + 7) 2 *n bh. n l g* = 2 P A + 2 P A. 4. Vasantatilaca, Sinhonnata, Udd'harshini, Mad'humad'havi. or Sobhavati, *t bh.* 2 *j* 2 *g* = S I P I P T S. 5. Lola, or Alola, (7 + 7) *m s m bh.* 2 *g* = S D S + S D S. 6. Induvadana, or Varasundari, *bh. j s n* 2 *g* = T P T P T P S. 7. Nadi, (7 + 7) 2 *n t j* 2 *g* = 2 P A + D T S. 8. Lacshmi, *m s t bh.* 2 *g* = S D S T D S. 9. Supavitra, (8 + 6) 4 *n* 2 *g* = 4 P + 2 P S. 10. Madhyacshama, (4 + 10) or

Cut'ila, (4 + 6 + 4) *m bh. n y 2 g* = 2 S + 3 P + 2 S. 11. Pramada, *n j bh. j l g* = 2 P 2 T P T I. 12. Manjari, (5 + 9) *s j s y l g* = P 2 T P T S I. 13. Cumari, (8 + 6) *n j bh. j 2 g* = 2 P 2 T P T S. 14. Sucesara. *n r n r l g* = P 2 I P 3 I. 15. Vasánti, *m t n m 2 g* = 2 S D A 2 S. 16. Nandimuc'hi, (7 + 7) *2 n 2 t 2 g* = 3 P S I T S. 17. Chacra, or Chacrapata, *bh. 3 n l g* = T 5 P I. 18. Lilopavati, (4 + 10) *4 m 2 g* = 2 S + 5 S. 19. Nat'agati, *4 n 2 g* = 6 P + S. 20. Copavati, *bh. m s t l g* = D S D S T I.

X. Atisaccarí, 15 × 4 = 60.

1. Chandrávartá, (7 + 8‡) *4 n s* = 2 P Tr. + P Tr. A. 2. Málá, or Sraj, (6 + 9) *4 n s* = 2 Tr. + 2 Tr. A. 3. Manigun'anicara, (8 + 7) *4 n s* = 4 P + 2 P A. 4. Máliní, or Nan'dímuc'hí, (8 + 7) *2 n m 2 y* = 3 P S + C T S. 5. Chandralec'há, (7 + 8) *m r m 2 y* = 2 S B + S I T S. 6. Cámacri'dá, Lilach'hela, or Sárangicá and Sarangaca, *5 m* = 6 S M. 7. Prabhadraca, or Subhadraca and Sucesara, (7 + 8) *n j bh. jr* = 2 P O + P 3 I. 8. Elá. (5 + 10) *s j 2 n y* = A I + 4 I T. 9. Upamálini, (8 + 7) *2 n t bh. r* = 3 P T + S A I. 10. Vipinatilaca, *n s n 2 r* = 2 P I Tr. T S I. 11. Chitra, *3 m 2 y* = 3 S M I T S. 12. Tun'aca, or Chamara, (8 L 7 Br. = 23 c.) = 6 T C. 13. Bhramaravali, *5 s* = 5 A. 14. Manahansa, *s 2 j bh. r* = A I P 2 T 2 I. 15. S'arabha, or S'as'icala, *4 n + s* = 6 P A. 16. Nisipala, *bh. j s n r* = D I P I P 2 I. 17. Utsara, *r n 2 bh. r* = 2 T 3 A I. 18. Hansa, (8 + 7) *n 2 j r y* = 2 P D 3 T S.

XI. Ashti, 16 × 4 = 64.

1. Rishabhagajavilasita, or Gajaturangavilasita, (7 + 9) *bh. r 3 n g* = D 2 T + 3 P A. 2. Van'ini, *n j bh. j r g* = 2 P 2 T P 2 T S. 3. Chitra, Chitrasanga, Atisundara or Chanchala. (double *Samanica*) *r j r j r l* = 8 T. 4. Panchachamara, Naracha or Naracha, (double *Pramánica*), *j r j r. j g* = 8 T. 5. Dhiralalita, *bh. r n r n g* = D 2 T P 2 T A. 6. C'hagati, Nila, Lila or Aswagati, *5 bh. g* = 4 D T I. 7. Chacita (8 + 8) *bh. s m t n g* = D A S + S D A. 8. Madanalalita, (4 + 6 + 6) *m bh. n m n g* = 2 S + 2 P I + S P I. 9. Pravaralalita, *m n s r g* = I 2 S 2 P I T S. 10. Garudaruta, *n j bh. j t g* = 2 P 2 T P T S I. 11. Sáilas'tic'ha, (16 or 5 + 6 + 5) *bh. r n 2 bh. g* = D 2 T 3 A or D T + T P T + I A. 12. Varayuvati, *bh. r y 2 n g* = D 2 T S 2 P A. 13. Brahmerupaca, (double *Vidyunmala,*) *5 m g* = 8 S. 14 Achaladhrita, or *Gityarya*, *5 n l* = 8 P. 15. Pinanilamba, (4 + 5 + 7) *m t y m s g* = 2 S + D S + S D S. 16. Yauvanamatta, (5 + 11) *bh. 3 m s g* = D S + 3 S D S.

XII. Atyashiti, 17 × 4 = 68.

1. Sic'harin'i, (6 + 11) *y m n s bh. l g* = I 2 S + 2 P I D I. 2. Pric'hwi, (8 + 9) *j s j s y l g* = I P 2 I + Tr. T S I. 3. Vans'apatrapatita, or Vansapatra, (10 + 7) *bh. r n bh. n l g* = D 2 T A + 2 P A. 4. Harin'i, (6 + 4 + 7 or 4 + 7) *n s m r s l g* = 2 P I + 2 S + I A I. 5. Mandacranta, (4 + 6 + 7) *m bh. n 2 t 2 g* = 2 S + 2 P I + C T S. 6. Narcut'aca, or Nardat'aca (7 + 10), or Avitat'ha (17 †), *n j bh. 2 j l g* = Tr. 21 + Tr. T I A. 7. Cocilaca, (7 + 6

+4‡ or 8+5+4†)=Tr. 2I+PIP+TI. 8. Hari, (6+4+7) 2 *n m r s l g*=3 P+2 S+I AI. 9. Canta, or Cranta, (4+6+7) *y bh. n r s l g* =I S+2 P I+I A I. 10. Chitralec'ha, or Atisayani, (10+7) 2 *s j bh. j* 2 *g* = 2 A 2 I +Tr. T S. 11. Malad'hara, or Vanamalad'hara, *n s js y l g* = 2 P 2 I Tr. T S I. 12. Harini, (4 +6+7) *m bh. n m y l g*=2 S+2 P I+S B I.

XIII. Dhriti, 18 × 4 = 72.

1. Cusumitalata vellita, (5+6 +7) *m t n* 3 *y*=M S+2 P I+C T S. 2. Mahamalica, Naracha, Lata, Vanamala, (10 + 8 †) 2 *n* 4 *r*=3 P T S+I T S I. 3. Sud'-bha, (6+6+6) *y m n s ts*= I 2 S +2 P I+S P I. 4. Harinapluta, (8+5+5) *m s* 2 *j bh. r*=S T 2 I +A I+A I. 5. Aswagati, 5 *bh. s*=5 D A. 6. Chitralec'ha, (4+ 7 +7) *m* 2 *n* 2 *t m*=S T+P Tr. S + I T M. 7. Bhramarapada, *bh. r* 3 *n m*=D 2 T 3 P A S. 8. Sardulalalita, (12 + 6) *m s j s t s* =S D 2 T A +S P I. 9. Sardula, (12+6) *m s j s r m*=S D 2 T A+T 2 S. 10. Cesara, (4+7 +7) *m bh. n y* 2 *r*= 2 S+2 P A + S I C. 11. Nandana, (11 + 7) *n j bh. j* 2 *r*= 2 P T D I+2 I C. 12. Chitrasala, Chitralec'ha, (4+7+7) *m bh. n* 3 *y*=2 S + 2 P A+C T S. 13. Chala, (4+7 +7) *m bh. n j bh. r*=2 S+2 P A +I A I. 14. Vivud'hapriya, (8+ 10 †) *r s* 2 *j bh. r* = 2 T 2 I + P 2 T 2 I. 15. Manjira, 2 *m bh. m s m*=3 S D S D 2 S. 16. Crid-achandra, 6 *y*=I T P I T P I T P. 17. Charchari, *r s* 2 *j bh. r*=I D I D 2 T 2 I.

XIV. Atidhriti, 19 × 4 = 76.

1. Sardulavicridita, or Sardula, (12 + 7) *m s j s* 2 *t g*= S D 2 T A + S I C. 2. Meg'havisp'hurjita, or Vismitra, (6+6+7.) *y m n s* 2 *r g*=I 2 S+2 P I + C T S. 3. Panchachamara, 2 *n* = alternate *g l*=Tr. P 7 I. 4. Pushpadama, (5+7+7) *m t n s* 2 *r g*= M S+2 P A+C T S. 5. Bimba, (5+7+7) *m t n s* 2 *t g*=M S+2 P A+H S I. 6. Ch'haya, (6+6 +7 or 12+7) *y m n s bh. t g*=I 2 S + 2 P I + D S I. 7. Macarandica, (6+6+7) *y m n s* 2 *j g* =I 2 S + 2 P I + I A I. 8. Samudratata, (8+4+7) *j s j s t bh. g*=I P 2 I + P I+S I A. 9. Surasa, (7 + 7 + 5) *m r bh. n y n g* = M T S + 2 P A + D I. 10. Manimanjari, *y bh. n y* 2 *j g* =I S 2 P A 2 T 2 I. 11 Chandramala, or Chandra, (10 + 9) 3 *n j* 2 *n l* = 5 P + D 3 P. 12. Dhavalanca, or Dhavala, 6 *n g* = 8 P A. 13. Sambhu, (7+6+6) *s t y bh.* 2 *m g*=A S A S S 3 S.

XV. Criti, 20 × 4 = 80.

1. Suvadana, (7+7+6) *m r bh. n y bh. l g*=2 S B+2 P A+S P I. 2. Vritto, or Gandaca, *r j r j r j g l*=10 T. 3. Sobha, (6+7+7) *y m* 2 *n* 2 *t* 2 *g*=I 2 S+2 P A + T S B. 4. Gitica, or Gita, *s* 2 *j bh. r s l g*=A I P 2 T 2 I A I.

XVI. Pracriti, 21 × 4 = 84.

1. Sragdhará, (7 + 7 + 7) *m r bh. n* 3 *y* = 2 S B + 2 P A + T S B. 2. Salilanid'hi, Sarasi, Sidd'haca, Sasivadana or Dhritasri, *n j bh.* 3 *j r*=2 P T D I+2 A 2 I. 3. Narendra, *bh. r* 2 *n* 2 *j y*=D 2 T 3 P 2 D S.

XVII. A'criti, 22 × 4 = 88.

1 Bhadraca, (10 + 12) *bh. r n r n r n g*=D 2 T A+I Tr. 2 T A. 2. Madira, or Lalita, 7 *bh. g*=6

D T I. 3. Hansi, (8+14) 2 *m* 2 *g* 4 *n* 2 *g*=4 S+6 P S.

XVIII. VICRITI, 23×4 = 92.

1. As'walalita, or Adritanaya, (11+12) *n j bh. j bh. j bh. l g*= 2 P T D I + I Tr. T D I. 2. Mattacrida,, or Vajivahana, (8+15) 2 *m t* 4 *n l g*=4 S+P A. 3. Sundari, (7 + 6 + 10) 2 *s bh. s t* 2 *j*= A P S + 2 P S + 2 D. 4. Ma'lati, or Madamatta, 7 *bh.* 2 *g* =7 D S. 5. Chitrapada, 7 *bh. l g*=7 D I. Mallica, 7 *j l g*=I P T I P T I P T I A.

XIX. SANCRITI, 24 ×4 =96.

1. Tanwi, (5+7+12+12) *bh. t n ṣ* 2 *bh. n y*=D S+2 P A+ 2 D 2P S. 2. Durmila, 8 *s*= 8 A. 3. Cirita, 8 *bh.* =8 D. 4. Janaci, 8 *r*=T S I T S I T Ṣ I T S I. 5. Madha'vica', 7 *j y*=I P T I P T I P T I P S.

XX. ATICRITI, 25 × 4 =100.

1. Craunchpada, (5+5+8+7) *bh. m s bh.* 4 *n g*= D S+D S + 4 P + 2 P A. 2. S'ambhu, 8 *m g*= 11 S M.

XXI. UTCRITI 26×4= 104.

1. Rhujangavijrimbhita, (8 + 11 + 7) 2 *m t* 3 *n r s l g*=4 S + 4 P A + I A I. 2. Apavaha, (9 +6+6+5) *m* 6 *n s* 2 *g* = S D 2 P+3 P+3 P+A S. 3. Gauri, 8 *m* 2 *g*=13 S.

From 27 to 999 syllables in the verse.

DAN'DACA, 27 × 4= 108 to 999 × 4 = 3996.

1. Chan'darishtiprayata, 2 *n* 7 *r*=2 Tr. 6 C.

2. Prachita, 2 *n* 8 &c. *r*.

325 species from 9 to 333 feet viz. 2d Arna, 2 *n* 8 *r*. 3d Arnava, 2 *n* 9 *r*. 4th Vyala, 2 *n* 10 *r*. 5th Jimuta, 2 *n* 11 *r* &c.

Or 3. Prachita, 2 *n* 7 &c. *y* = 2 Tr. 7 &c. B.

4. Mattamatangalilacara, 9 &c. *r* = 9 &c. C.

5. Sinhavicranta, 2 *n* 10 &c. *r*.

6. Cusumastavaca, 9 &c. *s* = 9 &c. A.

7. Anangasec'hara, *l g l g* &c. = 15 &c. I.

8. Asocamanjari, *r j* &c. = 15 &c. T.

Alſo SALURA, 2 *g* 8 *n s* = S 12 P A.

VI. *Half equal Metre; the ſtanza being compoſed of equal and ſimilar couplets; but the couplets, of diſſimilar verſes.*

1. Upachitra, *(Upajati + Tamarasa)*. 1st 3 verſe 3 *s l g* = 3 A I. 2d 3 *bh.* 2 *g*= 3 D S.

2. Drutamad'hya, *(Dod'haca + Tamarasa)*. 1st 3 *bh.* 2 *g*= 3 D S. 2d *n* 2 *y*=2 P 2 D S.

3. Vegavati, *(Upachitra*—penult Br. in 1st verſe). 1st 3 *s g* =2 A P S. 2d 3 *bh.* 9 *g*=2 D S.

4. Bhadraviraj (ſpecies of *Aupach'handaſica*). 1st *t j r g*=S P 2 T S. 2d *m s j* 2 *g*=S D 2 T S.

5. Cetumati. 1st *s j s g* = A I Tr. S. 2d *bh. r n* 2 *g* = T. 2 I Tr. S.

6. Ac'hyanaci *(Upajati* viz. alternate *Indravajra* and *Upendravajra*; some say, one verse *Indravajra* three *Upendravajra.)* 1st (and 3d) 2 *t j* 2 *g* = S I D T S. 2d (and 4th some say 3d) *j t j t* 2 *g* = 2 I D T S.

7. Viparitac'hyanaci *(the converse of the preceding.)* 1st *j t j* 2 *g* = 2 I D T S. 2d 2 *t j* 2 *g* = S I D T S.

8. Harin'aplutá *(Drutavilambita* — one syllable) 1st 3 *s l g* = 3 A I. 2d *n* 2 *bh r* = P I 2 A I.

9. Aparavaotra (species of *Vaitaliya:* or *Bhadrica* + *Málati).* 1st 2 *n r l g* = 2 P A 2 I. 2d *n* 2 *j r* = P 2 A 2 I.

10. Pushpitágrá (species of *Aupach'handasica).* 1st 2 *n r y* = 3 P 2 T S. 2d *n* 2 *j r g* = 2 P D 2 T S.

11. Yavamatí. 1st *r j r j* = 6 T. 2d *j r j r g* = 5 I B.

12. S'ic'há. 1st 28 *l g* = 7 Tr. P I.

13. Chanjá. 1st 30 *l g* = 7 Tr. P. 2d 28 *l g* = 7 Tr. P. 2d 28 *l g* = 7 Tr. I.

14. Lalitá. 1st *r s l g* = 2 T 2 I. 2d *s n j g* = A Tr. 2 I.

15. Caumudí *(Bhadrica* + *Chanchaláchic3).* 1st 2 *n r l g* = Tr. P 3 I. 2d 2 *n* 2 *r* = 3 P T S I.

16. Manjúsaurabha *(Málati* + *Manjubháshini).* 1st *n* 2 *j r* = 2 P T 3 I. 2d *s j s j g* = A I P 3 I.

VII. *Unequal Metre; the stanza being composed of dissimilar verses.*

1. Udgata, 1st verse *s j s l* = A I Tr. T. 2d *n s j g* = Tr. A 2 I. 3d *bh. n j l g* = T Tr. 2 A. 4th *s j s j g* = A I P 3 I.
2 varieties: viz. *Saurabhaca*, 3d verse *r n bh. g* = T D 2 A. *Lalita*, 3d verse 2 *n* 2 *s* = 2 Tr. 2 A.

2. Upast'hitaprachupita, 1st verse *m s j bh.* 2 *g* = S D 2 T D S. 2d *s n j r g* = A 2 P T S. 3d 2 *n s* = P A. 4th 3 *n j y* = 5 P D S.
2 varieties: viz. *Bard'hmán'a*, 3d verse 2 *n s* 2 *n s* = 3 P A. 3 P A *Sudd'havirá'lrishabha*, 3d verse *t j r* = S A 2 I.

3. Padáchaturubd'ha, increasing in arithmetical progression from 8 to 20 syll. viz. 1st verse 8, 2d 12, 3d 16, 4th 20.
6 species: viz. *Apid'a*, End in S Rest Br. *Pratyápida*, Begin with S or begin and end with S. *Manjari* or *Colicá*, 1st and 2d verses transposed 12 + 8 + 16 + 20. *Lavali*, 1st and 3d transposed 16 + 12 + 8 + 20. *Amritad'hárá*, 1st and 4th transposed 20 + 12 + 16 + 8.

VIII. *Supplement, under the denomination of* Ga'tha'.

1. Stanzas comprising four unequal verses, constituting a metre not described by writers on prosody

2. Stanzas comprising more or fewer verses than four; viz. three, five, six, &c.

3. Any metre not specified by Pingala.

4. Metre not specified by any writer on prosody.

VII.

Remarks *upon the* Authorities *of* Mosulman Law*.

BY J. H. HARINGTON, ESQ.

THE basis of Mohummudan law, religious, civil and criminal, is the *Korán*; believed to be of divine origin, and to have been revealed by an angel to Mohummud; who caused it to be written and published, from time to time, as occasion required, for the refutation of his opponents, or the instruction and guidance of his followers: though the hundred and fourteen *Soowur*, or chapters, which compose the *Korán*, were not digested, in their present form, until after the death of Mohummud: when they were collected by his immediate successor Aboo Bukr; and were afterwards, in the 30th year of the *Hijrah*, transcribed, collated, and promulgated, by order of the *Khuleefah* Othma'n†.

The *Korán* being thus considered the written word of God, its texts, when clear and applicable, and not abrogated by other texts of subsequent revelation, are unquestionable and decisive. But, (as remarked by an eminent historian ‡,) "In all religions the life of the founder supplies the silence of written revelation: the sayings of Mahommet were so many lessons of truth

* These remarks are intended to form part an Analysis of the Laws and Regulations, for the civil government of the *British* territories, under the Presidency of *Bengal*. This work is designed for the use of the students in the college of *Fort William*; and the second part, which relates to Criminal Justice, is introduced by a summary of the Mohummudan law of crimes and punishments, for the purpose of rendering more intelligible the amendments of it enacted by the Regulations of the Governor General in Council.

† V. Sale's Preliminary Discourse, Section III.

‡ In chap. L. of the *Decline and Fall of the Roman Empire*, relative to *Arabia*.

his actions so many examples of virtue; and the public and private memorials were preserved by his wives and companions." In fact, the ordinances of the *Korán*, in civil affairs are few and imperfect; and must have proved altogether inadequate to provide for the various objects of legislation, in a large and civilized community, without the aid of the *Soonnut*, or rule of conduct, deduced from the oral precepts, actions, and decisions, of the prophet. These were not committed to writing by MOHUMMUD; but were collected after his death, by tradition, from his companions, (the *Sahábah*;) their contemporaries, (*Tábiíeen*, literally, followers;) and successors (*Tubâ-i-tábiíeen*;) and the authentic traditions, which have been preserved in numerous compilations of *Ahádees*, (*dicta, factaque*; precepts and transactions;) *Soonun*, (*instituta vitæ, exempla*; rules of practice and examples;) or *Riwáyat*, (*relationes*, reports;) constitute a second authority of Mosulman law; conclusive (if the authenticity and application of the traditions be admitted) in all cases not expressly determined by the words of the *Korán* *.

* The collections of traditions held in the most general estimation, as genuine and authoritative, by the *Soonees*, or orthodox traditionists, are the following; denominated *Siháh-i-sitta*; or the *six authentics*.

1. *Saheeh-i-Bokháree*. Compiled by ABOO ABDOOLLAH, MOHUMMUD, of *Bokhárá*. He was born A. H. 194; and died in the year 256; in the suburbs of *Sumurkund*. His compilation is said to contain above seven thousand traditions; selected from 500,000.

2. *Saheeh-i-Mooslim*. By ABOO'L HOSE'N, MOOSLIM, of *Ny'shápoor*. He died A. H. 261; and is also said to have compiled his work from 300,000 traditions. This and the preceding collection, when cited together, are called *Saheehy'n*, or the *two authentics*.

3. *Soonun-i-Ibn-i Májah*. By MOHUMMUD-BIN-I YUZEED, BIN-I MAJAH: of *Kuzween*. (Erroneously named BEN MOHUMMUD, in D'HERBELOT. Title *Sunan Ebn Magiah*.) He died at *Kuzween*, in *Iráh*, A. H. 273.

4. *Soonun-i Aboo Dáood*. By ABOO DA'OOD, SOLY'MA'N, of *Sejistan*. He was born A. H. 202; and died at *Busrah*, in the year 275. His work is stated to consist of 4,800 traditions selected from 500,000.

THE schisms and dissentions, however, which took place among the Mohummudans, after the demise of their legislator and founder, especially the contest of the succession to the *Khilafut*, or pontificate, which gave rise to the *Shiya*, or sectaries of ALEE, have occasioned various differences and disagreements, both in reading and interpreting the words of the *Koran*, and in admitting or rejecting the traditions, which compose the oral law. There appear to be an error, or verbal inac-

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5. *Jáma-i Tirmizee.* By ABOO IEESA MOHUMMUD, of *Tirmiz*, in *Toorkistán.* He is also surnamed ZUREER or DHUREER, from his blindness. His birth was A. H. 209; and his death in 279. His compilation is noticed by D'HERBELOT, under the title of *Giame al Kebir*; and is erroneously cited (apparently from D'HERBELOT,) in HAMILTON'S Preliminary Discourse, page 36, as quoted in the *Hidáyah:* instead of the *Jáma-i-Kubeer*, on *fik-h*, or jurisprudence, by IMAM MOHUMMUD.

6. *Jama-i Nisáee*; called also *Soonun-i Nisáee.* By ABOO-I ABDOO RAHMAN AHMUD, of *Nisa*, a city of *Khorasan.* He was born A. H. 215; and died in the year 303. This collection is selected from a former compilation, by the same author, called the *Soonun-i-koobra*; and mentioned by D'HERBELOT, under the title of *Sonan Al Kebir.*

The four works last mentioned, when cited collectively, have the designation of *Soonun-i-urba*, or the four collects of traditions. The short notices, which have been given, of their compilers, and of the authors of the *Sahechyn*, are taken chiefly from the *Mirat-ool-aalum*, an esteemed general history composed by BUKHTIYAR KHAN, in the reign of AURUNGZEB. They are confirmed, with many other particulars, in the *Mishkat*, a work of authority on the traditions admitted by the *Soonees*; and used, as a class book, in Mosulman Colleges, with the *Saheeh-i Bokharee*, and *Saheeh-i Mooslim.* The author, SHYKH WALEEOODEEN, ABOO ABDOOLLAH, MAHMOOD, who finished his undertaking (to verify and illustrate the traditions contained in a former compilation, called the *Musabeeho' soonnut*, by HOSEN BIN-I MUSOO-OOD, FURAEE) A. H. 737, states that the *Mowutta* of MALIK BIN ANS, (the founder of the second orthodox sect, who died A. H. 179) is, by some reckoned one of the sixth authentic collections, instead of the *Soonun-i Ibni Majah.* He adds that others are of opinion, the *Darumee*, compiled by ABOO MOHUMMUD ABDOOLLAH of *Sumarkund*, surnamed DARUMEE, who was born A. H. 181, and died in 255, should be classed as the sixth authentic. But he has himself given this place to the compilation of MOHUMMUD, the grandson of MAJAH; and it is commonly placed third in the series, with reference to the supposed order of publication.

curacy, in the observation of the learned, and in general accurate, translator of the *Korán*, that "the *Sonnites* receive the *Sonna*, or book of traditions of their prophet, as of canonical authority; whereas the *Shiites* reject it as apocryphal, and unworthy of credit *." From this remark it might be inferred, that the *Shiyá* reject the traditions altogether; whereas they admit many which are not deemed authentic, and are consequently rejected, by the *Sŏonees*. They have also their collections of *Ahádees*, and *Sŏonun*, which they deem genuine and authoritative †. The difference between them, and the *Ahl-i-Sŏonnui*, or othodox traditionists, who, as remarked by Mr. HAMILTON, appear to have assumed this title of distinction, "in opposition to the innovations of the sectaries ‡," lies, as far as respects the traditions, in the different autho-

* SALE's Preliminary Discourse, Section VIII.

† MOULAVEE SIRAJ OO'DEEN ALEE (one of the law officers of the courts of *Sudr Deewanée* and *Nizamut Adalut*, as well as of the Supreme Court, and employed by the late Sir W. JONES, to compile the *Sheeah* part of a Digest of Mosulman Law, upon contracts and inheritance) states the *Kooioob-i urba*, or four books of traditions, held authentic by the *Shiya*, to be the following:

1. *Tahzeeb*. 2. *Istibsar*. Both compiled by ABOO JAFUR MOHUMMUD, of *Toos* in *Khorasan*.

3. *Jama-i Kafee*. By MOHUMMUD BIN-I YAKOOB. Of *Ry* in *Persian Irak*.

4. *Mun la Yahzoorh ool-fukeeh*. By MOHUMMUD-BIN ALEE, of *Komm*, also in *Irak-i Ajum*.

The third of these collections, which quotes the compiler of the two first, is said to have been presented to IMAM MAHDEE, who was born A. H. 255. The author of the fourth compilation is stated in the *Mujalis ool-Momuneen*, to have been contemporary with, and protected by, the Persian King ROKN-OO'DOULAH, who died, A. H. 366.

‡ Preliminary Discourse to his translation of the *Hidayah*, page 22. His observation, at length, is "the *Mussulmans*, who assume to themselves the distinction of orthodox, are such as maintain the most obvious interpretation of the *Koran*, and the obligatory force of the traditions, in opposition to the innovation of the sectaries; whence they are termed *Soonis*, or traditionists." This, however, is partly open to the same objection, as has been stated to the remark of Mr. SALE.

rities, which are admitted by the two sects for the *Ahaadees*, received by them respectively. The *Soonees* allow traditionary credit to the *Sahabah*, or companions of their Prophet; especially to the most eminent amongst them, or those who had the longest and most familiar intercourse with MOHUMMUD; and to the *Khoolfa-i rashideen*, or the four *Khuleefahs*, who were the immediate successors of the Prophet; and instructed by him in the principles, and tenets of his religion. Also to several intelligent and learned men, who were contemporary with the companions and first *Khuleefahs*, and who are included in the general description of *Tabiieen* already mentioned; as well as to others, who succeeded these; (the *Taba-i-tabi-ieen*;) and have verified their reports of traditions, by citing the names of the persons, through whom they were successively traced to their genuine source, the inspired Apostle of God*.

THE *Shiyá*, on the contrary, gave no authority, or credit, to the three first *Khuleefahs*, ABOO BUKR, OMUR and OTHMA'N: nor to any other companions of MOHUMMUD, excepting such as were partisans of ALEE. They extend their faith and obedience, however, to the admission of all traditions of their Pro-

* The nature of this treatise does not admit of a fuller account of the *Soonee* traditions; which are distinguished by some authors as *Saheek* (authenticated;) *Husun* (approved:) *Zaieef-o-ghureeb* (weak and poor;) *Moonkur-o-mouzooa* (denied and imposed:) by others, as *Moosnud* (vouched or certified;) and *Moorsul*, or *Moonkuta* (detached or divided.) The *Moosnud* are also subdivided as *Murfooa* (ascending to the Prophet;). *Moukoof* (resting with the *Sahabah*;) and *Muktooa* (severed or cut short among the *Tabiieen*;) or by any other classification as *Mootawatur* (repeated, successive;) *Mush,hoor* public, notorious; and *Wahid* (single, particular.) The *Mishkat*, referred to in a former note, has however been translated by an officer of the *Bengal* establishment, and if it receive sufficient encouragement to repay the heavy expence of printing in *India*, it will be speedily published.

phet's sayings and actions, which they believe to have been verified by any one of the twelve *Imámeeyah*; as well as to the precepts and examples of those *Imams* themselves; the whole of whom they venerate, as being the lineal descendants (through FA'TIMAH), and according to their tenets, the rightful successors, of MOHUMMUD; and the last of whom they believe to be still living, though invisible; it having been predicted of him, that he will return to judge and rule the world; to punish sinners, and those who have departed from the true faith; and to restore and confirm the genuine truths of religion, with piety, justice, and every other virtue *.

WHEN neither the written nor oral law prescribes a rule of decision, the concurrence of the companions of MOHUMMUD (*Ijmá-á-i Sahabah*) is received by the *Sŏonees*, as a third source of legal authority: and if

* The names of the twelve *Imams* are given by D'HERBELOT, under the head of *Imam*. He has also given a brief statement of the tenets of the *Shiya*, under the titles of *Schiah*, *Ali*, and other titles of his valuable, though (as might be expected in so voluminous and miscellaneous a work) sometimes erroneous and often imperfect compilation. A fuller account of the doctrines, and practice of the *Shiya* is contained in the 2d vol. of CHARDIN. (*Description de la Religion des Persans*, in the *Amsterdam* Edition of his *Voyage en Perse* published in M.DCC.XI.) But the most authentic information upon the jurisprudence of the *Imámeeyah* sect, (which, not having been established, for the administration of justice, in any part of the Company's territories, needs not to be further noticed in this tract,) will be furnished by the completion of a work, the first volume of which is already printed,) and entitled—"A Digest of *Mohummudan Law*, according to the tenets of the *Twelve Imams*; "compiled under the superintendence of the late Sir WILLIAM "JONES: extended, so as to comprise the whole of the *Imameea* code "of jurisprudence, in temporal matters; and translated, from the "original *Arabic*, by order of the Supreme Government of *Bengal*; "with Notes, illustrative of the decisions of other sects of *Mohummudan* lawyers, on many leading and important questions. By "Captain JOHN BAILLIE, Professor of the *Arabic* and *Persian* Languages, and of *Mohummudan* Law, in the College of *Fort William*."

this also fail, they allow the validity of reason, restricted by analogy, (*kiyas*) in applying, by inference, the general principles of law and justice, to the various transactions and circumstances of the changeful scene of human life; which, as they could not be all foreseen, it was impossible they should be completely and expressly provided for. This is so clearly stated, with the origin of the principal *Sŏonee* sects, who agree in matters of faith, (*akaeed.*) but differ on points of practical jurisprudence, (*fik,h,*) in a section of the *Mokhtusur ŏo dowul* (compendium of dynasties) of GREGORIUS ABOO'L FURUJ, translated (into *Latin*) by POCOCK, in his *Specimen Historiæ Arabum*; that the following *English* version will not, it is persumed, be unacceptable; especially as both the *Arabic* orignal and *Latin* translation, are little known in *India* *.

"OF the sects (*Muzâhib*) which differ upon the branches, or derivative parts of the law, concerning rules of jurisprudence, and cases of disquisition, four are the most celebrated: viz. those of M'ALIK BIN-I ANŜ; of MOHUMMUD BIN-I IDREES, ŏo' SH'AFI,ÎEE; of AHMUD BIN-I HUNBUL; and of ABOO HUNEEFAH NAÔMA'N BIN-I THA'BIT. The fundamental grounds of disquisition (*Ijtihad*) are also four; the scripture

* ABOO'L FURUJ was a Christian, born at *Malathia* in *Aladulia*, or *Armenia minor*, A. C. 1226. But he wrote in *Arabic*, and appears to have been well versed in the religion and law, as well as in the history, of *Arabia*. V. POCOCK's *Specimen Historiæ Arabum*, comprising an extract from the dynasties of ABOO'L FURUJ, which, GIBBON observes, "form a classic and original work on the *Arabian* antiquities." Published at *Oxford*, in 1650. Also the complete *Latin* version of the original work, by POCOCK, published in 1663. GIBBON has added, upon this, however, that "it is more useful for the literary than the civil history of the East." Cap. LI. n. 13.

(*kĭtab*;) the traditionary law (*Sŏonnut*;) the concurrence of the prophet's companions (*ljmaâ*;) and analogy, or analogical reasoning (*kĭyas*). For, when any legal question arose, respecting what was lawful or unlawful, a regular investigation took place, in the following manner. First, they searched the book of Almighty God (the *Koran*;) and if any clear text were found in it, such was adhered to. But, if not, they sought for a precept, or example, of the Prophet; and abided by it, if applicable, as decisive. If none such were discovered, they inquired for a concurrent opinion of the *zahabah*; who, being directed in the right way, are not open to suspicion of misleading; and therefore, if their sentiments could be ascertained, on the point in question, they were deemed conclusive. If not, an ultimate resort was had to analogy and reason; the variety of contingent events being infinite; whereas the texts of the law are finite. It thus appears certain that the exercise of reason may be proper and necessary in legal disquisition. IMA'M DA'OOD of *Isfahan*, however, entirely rejected the exercise of reason; whilst, on the contrary, ABOO HUNEEFAH was so much inclined to it, that he frequently preferred it, in manifest cases, to traditions of single authority. But MA'LIK, SHAFIÎEE, and IBN-I HUNBUL, had seldom recourse to analogical argument, whether manifest or recondite, when they could apply either a positive rule, or a tradition. This gave rise to their different opinions and judgment; which are recorded in books that treat of their disputations; yet neither infidelity, or error, is to be charged against them on this account.

THE four principal jurists, and founders of sects, among the *sŏonees*, who are noticed by ABOO'L FURUJ, have been particularly mentioned in the notes of

Pocock's Specimen, already referred to; in the *Bibliotheque* of D'Herbelot; and in the preliminary discourse of Sale and Hamilton *. The doctrines of Ma'lik, and Ibn-i Hunbul, are not known to prevail in any part of *India*. Those of Sha'fiîee have a limited prevalence on the sea coast of the peninsula; and are understood to obtain among the *Malays*, and other Mosulmân inhabitants of the Eastern Islands. But the authority of Aboo Huneefah, and his two disciples, Aboo Yoosuf and Im'am Mohummud, is paramount, and exclusively governs judicial

* Their names, at length, are—1. Aboo Huneefah Naôma'n bin-i Thabit: or, as pronounced in *India*, Sabit. 2. Aboo Abdoollah Malik bin-i-ans, or, as otherwise read, Anus. 3 Aboo Abdoollah Mohummud ibn-i-Idrees oo'Shafiîee, or a descendant from Shafiî. 4. Aboo Abdoollah Ahmud ibn-i Hunbul. The first is commonly called Aboo Huneefah, meaning the father of Huneefah, and therefore is improperly cited, in the translation of the *Hidayah*, by the name of Huneefah only; which, moreover is a feminine appellation, and was the name of the second wife of Alee. (Vide Tit. Hanifah, in the Bib. of D'Herbelot,) He was born at *Koofah*, about A. H. 80; (some say ten, and others twenty-one, years earlier;) was instructed in the traditions, by Imam Jafur-i Sadik, the sixth *Imam*; who, as an authority for the precepts and actions of Mohummud, is esteemed by the *Soonees*, as well as by the *Shiya*; (not the *Sheeah* Doctor, Aboo Jafur, mentioned in a former note; as erroneously stated in Hamilton's Preliminary Difcourse, p. xxiii. Vid. Tit. *Giafar* in the *Bib. Or.*) and died in prifon, at *Bughdâd*, in the *Khilâfut* of Munsoor, A. H. 150. The founder of the second sect is known by his proper name Malik. He was born at *Mudeenah*, between the years 90 and 95 of the *Hijrah*; and died, at the same place, in a state of religious retirement, during the reign of Haroon oo'Rusheed, A. H. 179. The patronymic, *Shafiee* usually distinguishes the third leader: who was born at *Gaza* or *Ascalon*, in *Palestine*; in the hundred and fiftieth year of the *Hijrah* and died at *Cairo*, (where the famous Salah oo deen, some centuries afterwards, founded a College, in honour of his memory and doctrines,) A. H. 204. The last chief, Ahmud, is more generally called, from his father, Ibn-i Hunbul. He was born at *Bughdad* or according to some at *Murv*, or *Muroo*, in *Khorasan*, A. H. 164 and died at *Bughdad*, where he attended the lecture of Shafiîee A. H. 241.

decisions, in *Bengal* and *Hindoostan*, as well as at *Constantinople*, and other seats of Mohummudan dominion in *Turkey* and *Tartary*. It will therefore be sufficient to state the system of ABOO HUNEEFAH, with the illustrations, and amendments of ABOO YOOSUF and IM'AM MOHUMMUD *; noticing, after the manner of the *Hidayah*, any particular opinions of the other orthodox sects, upon points of importance, which may appear to require it.

IT has been remarked by Sir W. JONES, in his preface to the *Sirajeeyah* †, "that although ABOO

* ABOO YOOSUF YAKOOB BIN I IBRAAEEM OOL KOOFEE, was born at *Koofah*, A. H. 113; and after finishing his studies under ABOO HUNEEFAH, was appointed *Kazee* of *Bughdad* by the *Khalleefah*, HADER. He was afterwards, in the reign of HAROON OO' RUSHEED, made *Kazee ool Koozat*, or chief Judge; and retained that high station, (which is said to have been first instituted for him) until his death, A. H. 182—ABOO ABDOOLLAH MOHUMMUD BIN-I HUSUN OO' SHYBANEE (of the tribe of *Shyban*) who is usually called IMAM MOHUMMUD, was born at *Wasit* in *Arabian Irak*, A. H. 132. He was a fellow pupil with ABOO YOOSUF, under ABOO HUNEEFAH, and on the death of the latter, continued his studies under the former. He is also said to have received instruction from MALIK. He was appointed by HAROON OO'RUSHEED to administer justice in *Irak-i Ajum* or *Persian Irak*, and died at *Ry*, the former capital of that province, A. H. 179: or, according to the *Rouzut oo'rivaheen*, an esteemed history from the commencement to the 759th year of the *Hijrah*, by YAFIIEE, A. H. 189. (See further particulars respecting ABOO YOOSUF and IMAM MOHUMMUD, in HAMILTON'S Preliminary Discourse). ZOOFUR BIN-I HOOZEL, and HUSUN BIN-I ZIYAD, (the former of whom held the appointment of chief magistrate at *Busrah*, where he died A. H. 158) were also two distinguished contemporaries, and scholars, of ABOO HUNEEFAH; and are sometimes quoted as authorities for his doctrines; especially when the two principal disciples are silent.

† A work of authority upon the Mohummudan law of inheritance, translated and published, with a commentary, by Sir W. JONES, in the year 1792. This is the only part of the Mosulman Digest, undertaken by the venerable judge in 1788, which his various avocations and studies allowed him to complete. He deemed it worthy of being exhibited entire, as containing the "Institutes of *Arabian* law on the important title mentioned by the *British* legislature (in the Statute 21 GEORGE III. Chapter LXX) of inheritance

HUNEEFAH be the acknowledged head of the prevailing sect, and has given his name to it, yet so great veneration is shown to ABOO YOOSUF, and the lawyer MOHUMMUD, that, when they both dissent from their master, the Moosulman judge is at liberty to adopt either of the two decisions, which may seem to him the more consonant to reason and founded on the better authority." This remark corresponds with the received opinion of present lawyers; and is sanctioned, for the most part, by a passage to the following effect in the *Hummadeeyah* *. "*Futwas* (law decisions, or opinions) are given primarily, according to the doctrine of ABOO YOOSUF; next according to IM'AM

and succession to lands, rents, and goods." And it is of particular value to the jurisprudence of *British India*, as the *Hidayah*, translated by Mr. HAMILTON, does not include the law of inheritance. It has not been ascertained when the author of the original treatise lived. But the *Kushf oo' Zunoon*, (or *dhunoon*, as pronounced in *Arabia*) the bibliographical work of HAJEE KHULFAH, which furnished materials for a considerable part of the *Bibliotheque Orientale*, (*Vid.* GALAND's preface, p. xiv. Ed. M.DCC.LXXVI.) mentions it, under the title of *Furayid oo' Sujawundee* in the following terms; together with the date of the commentary of SYYUD SHUREEF; the substance of which is given by Sir W. Jones, with that of a recent *Persian* comment, by MOULAVEE MOHUMMUD KASIM, who was employed by Mr. HASTINGS to translate, from the *Arabic* into *Persian*, both the *Sirajeeyah* and the *Shurce feeyah*. "The *Furayid-oo' Sujawundee*, composed by IMAM SIRAJ OO'DEEN, MAHMOOD BIN-I ABD OO' RUSHEED, of *Sujawund*, is commonly called the *Furaeezi Sirajeeyah*. It is held in high estimation and in general use. Many of the learned have written commentaries upon it, to the number of forty; the best of which is the comment of SYYUD OO'SHUREEF ALEE BIN-I MOHUMMUD, of *Joorjan*; finished, *Sumurkund*, in the year (of the *Hijrah*) 104. This commentary is of the first authority, and universally received. Several Scholiasts, of erudition, have given annotations upon it.

* A collection of legal expositions, by ABOO'L FUTHA, ROKN OO DEEN IBN-I HOSAM, *Mooftee* of *Nagor*, in the *Dukyun*; and dedicated to his teacher, HUMAD OO' DEEN, AHMUD, chief *Kazee*, of *Nuhr walah*. The time when this work was compiled is not exactly known; but, thought of modern date, it is held in considerable estimation. The court of *Nizamut Adalut* possess a complete copy, obtained for them, with some other law books, by Lord TEIGNMOUTH, from the *Nuwab Vizeer*, in the year 1797.

MOHUMMUD next according to ZOOFUR; and then according to HUSUN BIN-I ZIY'AD. It is said, that if ABOO HUNEEFAH be of one opinion, and his two disciples of another, the *Mooftee* is at liberty to chuse either; but the preceeding rule must be observed, when the *Mooftee* is not a scientific jurist; (and therefore not competent to judge of the opposite opinions.) This is copied from the *koonyah* *. In judicial decreees however a preference is given to the doctrine of ABOO YOOSUF (who was an eminent judge); for IMAM *Surukhsee* †, has declared it safe to rely upon ABOO YOOSUF in judicial matters; and that the learned have followed him in such cases; though if there be a difference between the two disciples, which ever agrees with ABOO HUNEEFAH must be preferred. The joint opinion of the disciples may also be adopted, though different from that of ABOO HUNEEFAH, if the difference appear to proceed from a change of human affairs; (*lit.* a change of men, and alteration of times;) and modern lawyers are agreed, that the doctrine of the two disciples may be taken for adjudication in all matters of civil justice."

"IT appears, however, that the ancient jurists held the authority of ABOO HUNEEFAH to be absolute, although both his disciples might differ from him. This is stated, without reservation, in a chapter, "on the order of authorities to be observed in practise,"

* A law tract often quoted in the *Futawa-i Aalumgeeree*, not known to be at present extant; and by whom composed, has not been ascertained.

† SHUMS OOL AIMMAH, ABOO BUKR MOHUMMUD, native of *Surukhs*, in *Khorasan*. The *Moheet* composed by him will be mentioned in a subsequent note. He also wrote a commentary on the *Jama-i Sugheer* of IMAM MOHUMMUD; and a comment upon the *Kefee ool Hakim*, (stated in the *Kushf-oo'zunoon* to have been composed by HAKIM-I SHAHEED, MOHUMMUD; but no longer extant,) which is called *Mubsoot-i Sarukhsee*, and often quoted in the *Hidayah*. He died, at the place of his nativity, A. H. 483.

forming part of the book entitled *Adáb ool kâzeë*, or *duties of the kázee*, in the *Futáwá-i Aálumgeeree*, or collection of law cases, compiled by order of the Emperor AA'LUMGEER. The same chapter contains other useful information upon the rules and discretion, under which the Mosulman magistrate is empowered to administer justice; and as it is not long, a literal translation of it is here introduced; omitting only a quotation from the *Mubsoot*, which being nearly a repetition of that given from the *Budayiá*, the insertion of both appeared superfluous.

"IT is incumbent upon a *kázee* (or judge) to give judgment according to the book of God; to know what parts of the divine book are in force, and what have been abrogated; to be able to distinguish between the texts which are clear and positive; and such as are of doubtful meaning, having obtained a different interpretation from the learned. If no rule be found in the book of God, the *kázee* is to decide according to the traditions from the Prophet. He must therefore be competent to discriminate those in force from such as have been superseded; and the spurious and invalid, from such as are genuine and authoritative. He must be acquainted with those which have obtained successive, notorious, or single, verification; and with the character and credit of the reporters of them. Because some are celebrated for their knowledge of jurisprudence *(fik-h ó adalut;)* as the four first *khuleefahs*, and the three ABDOOLLAHS, (viz. ABDOOLLAH IBN-I OMUR, ABDLOOLAH IBN-I ABBA'S, and ABDOOLLAH IBN-I MUSÔOOD, three of the more learned of the companions;) whilst others are esteemed on account of their long and familiar intercourse with the Prophet, and their perfect recollection of the traditions; and they are preferred accordingly; the former as the best authorities on the general principles

of legal science; the latter for the authenticity of particular traditions. If a case arise to which none of the traditions, derived from the Prophet, may be applicable, let the *kazee* determine it according to the concurrent opinion of the *Sahabah* (companions), for their concurrence affords a just and obligatory rule of conduct. If there be a difference of opinion among the companions, let the *kazee* compare their respective arguments, and follow those which, on investigation, may appear to him preferable; supposing him qualified to enter into such a disquisition. He is not authorized to reject the whole of these opinions, and adopt a judgment of his own, altogether novel. For the companions have agreed upon this point, that although they may differ from each other, it is not lawful to institute new doctrines, at variance with the whole of them. KHUSUF * holds the contrary opinion, that when the companions differ, the *kazee* may adopt a judgment altogether distinct, as their dissention affords ground for disquisition: but what is above stated has the best foundation. When the companions have agreed upon a point, in which one of their followers *(tabiteen)* has dissented from them; if the dissenter was not their contemporary, his opposition has no weight; and a judgment given conformably thereto, against the concurrent opinion of the companions, would be invalid: but if he were contemporary with them, and then expounded the law in opposition to their opinions,

* IMAM ABOO BUKR, AHMUD BIN-I OMUR, surnamed KHUSAF, or the farrier. He composed the most celebrated of the works known under the title of *Adab ool Kazee*, or duties of the *Kazee*; and is stated, in the *Kushf oo Zunoon*, to have died A. H. 261. A high encomium is added upon his composition; which is said to consist of 120 Chapters, replete with useful information. Several learned men have written commentaries upon it, of which the most esteemed is that of IMAM OMUR BIN-I-ABD-OOL-AREEZ, cammonly called HOOSAM, the martyr, A. H. 526.

and they gave sanction to his disquisitions, as in the instances of SHORY'A and SHABEE *, the concurrence of the companions does not bar the opposite exposition, so admitted. With respect, however, to expositions which have no other authority than part of the *Tabieen*, there are two reports of the sentiments of ABOO HUNEEFAH. One, that he did not consider such to be authoritative: and this appears to be the true doctrine. The other, contained in the *Nuwadir* †, states, that if some of the followers of the companions have given *Futwas* in their time, and have received from the latter a sanction to their disquisitions; as SHORY'A, HUSUN ‡, and MUSROOK BIN-I AJDA ||, their decisions should be observed. It is thus written in the *Moheet* §.

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* The first was *Kazee*, the second *Mooftee*, of *Koofah*, in the first century of the *Hijrah*; and they were esteemed two of the most learned men of their age. The former, whose name at length, is ABOO OMYYAH SHORYA BIN OOL HIRAS OOL KINDEE, held the station of *Kazee*, at *Koofah*, for seventy-five years, and died A. H. 78 or 80; after resigning his office the year before his death. The entire name of the latter is ABOO OMUR AAMIR BIN-I SHURAHEE OO SHABEE, deriving his surname from the town of *Shab*, in *Arabia*. He died A. H. 104.

† Ten different works of this name, (meaning, literally, *rare, scarce*) are specified in the *Kushf oo Zunoon*; of which one was composed by IMAM MOHUMMUD, the disciple of ABOO HUNEEFAH; and it is probably that here referred to. It is considered to be of less authority than his five other works, the *Jama-i sugheer*, *Jama-i kubeer*, *Mubsoot*, *Zeeadat*, and *Siyur*, which are well known, and frequently quoted, under the general designation of *Zahir oo Ruwayat*, the conspicuous reports.

‡ Vid. *Bib. Or. Tit. Hassan al Basri.*

|| A learned native of *Hamedan*, who became a convert to ISLAM, during the life of MOHUMMUD; and died at *Koofah*, A. H. 62.

§ There are three works of this title; all of which are quoted in the *Futawa-i Aalumgeeree*; but the two others are distinguished by the addition of *Surukshee* or *Boorhanee*. The two latter will be mentioned in a subsequent note. The *Moheet*, here referred to, is supposed to have been written by MOULANA RUZEE OO DEEN of *Nysha-*

"If the concurrent opinion of the companions be not found in any case, which their followers may have agreed upon, the *Kázee* must be guided by the latter. Should there be a difference in opinion between the followers, let the *Kázee* compare their arguments and adopt the judgment he deems preferable. If, however, none of the authorities referred to be forthcoming, and the *Kázee* be a qualified jurist; (*Ahil ool-Ijtihád*, literally a person capable of disquisition;) he may consider in his own mind what is consonant to the principles of right and justice; and applying the result, with a pure intention, to the facts and circumstances of the case, let him pass judgment accordingly. But if he be not a qualified person, let him take a legal opinion from others who are versed in the law, and decide in conformity thereto. He should, in no case, give judgment without knowledge of the law; and should never be ashamed to ask questions for information and advice. It is further requisite that the *Kázee* attended to two rules: first, that when the three *Imáms* (Aboo Huneefah, Aboo Yoosuf, and Ima'm Mohummud) all agree, he is not at liberty to deviate from their joint opinion, upon his own judgment. Secondly, when the *Imams* differ, Abdoollah bin-i Moba'ruk * says, the *Kázee's* sentence is to be given according to the

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poor, who, in the notes prefixed by Syyud Ahmud-i Humaver to an old copy of the *Hidayah*, purchased at *Mukkah*, is said to have compiled the opinions of the followers of Aboo Huneefah, in a regular series; whereas other compilers had blended them. This *Moheet*, however, is not extant in *India*, and is only known by quotations from it.

* One of the pupils of Aboo Huneefah, surnamed Muroozee from *Muroo*, the place of his nativity. He was held in high veneration for his piety, and his tomb is said to be visited, at *Hit*, in *Arabian Erak*, (Vid. *Bib. Or.* Tit. *Abdalla*). He died at the age of 63, A. H. 180, (*Mirat ool-aálum*).

opinion of ABOO HUNEEFAH, because he was one of the immediate followers, and contemporaries, of the companions, and opposed them in the *futwas*. So it is in the *Moheet* of SURUKHSEE*.

"IF no precedent be found from ABOO HUNEEFAH and his disciples, and the case have been determined by subsequent lawyers, the *Kazee* is to abide by the judgment of the latter; unless there be a difference in their decisions, in which event the preference is left to his discretion. If not even a modern precedent be forthcoming, the *Kázee* may exercise his own reason and judgment; provided he be conversant with jurisprudence, and have consulted with sages of the law. In the commentary of TAHA'VEE†; it is stated, that if the *Kázee* pass sentence on his own judgment, in opposition to the manifest letter of the law *(Nuss)*, such sentence is not valid. But if the sentence be not contrary to the clear letter of the law, and the *Kazee*, after passing it, should change his opinion, his former judgment is, nevertheless, valid: though his future adjudi-

* The author of this work, which is extant, and held in high estimation, is stated, in the *Kushf oo Zunoon*, to be SHUMS OOL AIMMAH, ABOO BUKR MOHUMMUD, of *Surukhs*, mentioned in a former note. The *Moheet-i Boorhanee*, composed by BOORHAN OO' DEEN-MAHMOOD BIN-I AHMUD, is also noticed in the *Kushf oo Zunoon*; but without any other particulars of the author. He is mentioned by D'HERBELOT, under the title of *Sarakhsi*, as having been born at *Surukhs*; and having gone from hence into *Syria*, where he superintended a College at *Aleppo*; and died at *Damascus*, A. H. 571. His *Moheet* is known in *India*; and an incomplete copy is possessed by the court of *Nizamut Adálut*; but it is less esteemed than that of SHUMS OOL AIMMAH

† IMA'M ABOO JAFUR AMUD BIN-I MOHUMMUD, of *Tabá* (a town in Upper *Egypt*) is one among the numerous commentators of the *Jama-i Sugheer* of IMAM MOHUMMUD. He also wrote an abridgement of the doctrine of ABOO HUNEEFAH, and his two disciples, intitled *Mokhtusur-i Tahavee*. Both works are often quoted, as authorities, but are not known to be now extant. He is stated in the *Kushf oo Zunoon*, to have died A. H. 371

cations must be regulated by his recent opinion. This is the doctrine of the two elders (SHY'KHY'N, viz. ABOO HUNEEFAH and ABOO YOOSUF,) and IMA'M MOHUMMUD agrees with them, provided the second opinion of the *kazee*, in such cases be deemed by others preferable to the first. It is further stated (by TAHA'VEE), that if the ancient jurists have formed different opinions upon any point, and their successors have agreed upon the opinion to be preferred; according to the two elders, this agreement does not remove the effect of the former difference; but IMA'M MOHUMMUD thinks it is removed thereby. SHY'KH OOL ISLAM SHUMS OOL AÍMMAH SUBUKHSEE, reports, however, that all the disciples of ABOO HUNEEFAH agree in opinion upon this point, and that a few of the learned only hold the continuance of the original dissent, notwithstanding the subsequent agreement. If the lawyers of one age concur in any particular doctrine, and a *kazee*, in after times, differing in opinion from them, with an upright intention, pass an opposite judgment; some hold his so doing to be legal, provided there were an original difference among the learned upon the doctrine in question; whilst others deem it illegal, notwithstanding such original difference; but all agree upon the illegality of the opposite judgment, supposing no difference of opinion to have been at any time entertained upon the subject. In the *Futawa-i Itabiyah** it is stated, that if a *kazee* take an exposition of the law from a *Mooftee*, and differ in opinion from the latter, he is to pass sentence in the case according to his own judgment; provided he be a person of understanding and knowledge; and that if the sentence be passed

* The author of this work, ABOO NUSR AHMUD BIN-I-MOHUMMUD OOL ITABEE, of *Bokhara*, is mentioned in the *Kushf oo Zunoon* as having also written a commentary on the *Jama-i Sugheer* of IMAM MOHUMMUD. He died A. H. 585.

against his own opinion, in deference to that of the *Mooftee*, it is according to the two disciples (SA'HIBY'N, viz. ABOO YOOSUF and IMA'M MOHUMMUD) invalid: in like manner as in matters of religious preference on presumption it is forbidden to act upon the judgment of others: but ABOO HUNEEFAH holds the sentence to be valid in such cases, as it is the result of legal disquisition. Supposing the *kazee* not to have exercised his own reason on the case, at the time of his giving judgment according to the opinion of the *Mooftee*; and that he subsequently forms an opinion, at variance with that of the *Mooftee*; IM'AM MOHUMMUD says, his sentence is liable to abrogation; but ABOO YOOSUF affirms, it is not affected thereby; in the same manner as it would not be affected if the *kazee* had passed sentence on his own opinion, and had afterwards changed that opinion. The foregoing is copied from the *Tatarkhaneeyah* * "

"WHEN there is neither written law, or concurrence of opinions, for the guidance of the *kazee*, if he be capable of legal disquisition, and have formed a decisive judgment on the case, he should carry such judgment into effect by his sentence, although other scientific lawyers may differ in opinion from him; and should not be governed by their sentiments, in opposition to his own; for that which, upon deliberate investigation, appears to be right and just, is accepted as such in the sight of God. If however the persons, who declare an opinion different from that of the *kazee* be superior to him in science, and he consequently adopt their judg-

* Vid. *Bib. Or. Tatarkhan.* An imperfect copy of the work referred to, entitled *Futawa-i Tatarkhanceyah*, is in the possession of the court of *Nizamut Adalut.*

ment, questioning the grounds of it, from respect to their superior knowledge, ABOO HUNEEFAH admits the legality of his proceeding. ABOO YOOSUF and IM'AM MOHUMMUD, on the contrary, do not allow it to be legal, unless he ultimately adopt their opinion as the result of his own judgment. This, at least, is one report: but another says, that the master and his two disciples held, respectively, the reverse of what has been mentioned. If in any case, the *kazee* be perplexed by opposite proofs, let him reflect upon the case, and determine as he should judge right: or, for the greater certainty, let him consult other able lawyers; and if they differ, after weighing their arguments, let him decide, as appears just. Should they agree with each other, but differ from his own opinion on the case, he is to adhere to the latter until he be convinced it is ill founded, and may give judgment accordingly; but not precipitately, or until he has duly weighed and examined the whole of the circumstances and evidence. Let him not fear or hesitate to act upon the result of his own judgment, after a full and deliberate examination: but let him beware of a doubtful and conjectural decision, without complete investigation, as such will not be approved in the account of his actions to God; though, from want of certain information to the contrary, it may pass as a valid sentence among men. What has been here said supposes the *kázee* to be a *Moojtahid*, or scientific jurist, competent, from his talents and learning, to undertake legal disquisition. If he be not a person so qualified, but possesses a knowledge and full recollection of the points and cases determined by the eminent lawyers of his persuasion, let him give judgment according to the tenets of those in whom he confides; and whom he believes it right to follow. Should he not have a perfect recollection of decided law-points, let him act upon expositions of the law, by *Mooftees* of the orthodox doctrine; or if

there be only one such *Mooftee* on the spot, his single exposition may be acted upon, without fear of imputed deficiency. It is thus written in the *Budáyiâ* *."

"THE legal meaning of *Ijtihád* is the diligent exercise of the mental faculties in search of the thing desired; and the requisite qualification of a *Moojtahid*, is a discriminative knowledge of what is contained in the book of God, and in the traditions from the Prophet, relative to legal rules and ordinances *(ahkám.)* It is not essential that he should also know the moral precepts and admonitions included therein. It has been likewise declared that a person, whose general rectitude exceeds his deviations from right, may lawfully practise *Ijtihad*, or disquisition. But the definition above given is accurate: as stated in the *Fosool ool Imadeeyah* †. The most correct account given of a *Moojtahid* is, that he have a comprehensive knowledge of the divine book, with the different interpretations thereof; a full acquaintance with the traditions, their gradations, texts, and comments; a right understanding, or power

* A commentary on the *Tohfut ool Fokaha*, of SHYKH OLA OODEEN' MOHUMMUD, of *Sumurkund*, by his pupil, ABOO BUKR, BIN-I MUSOOOD, of *Kashan*, in *Persian Irak*. The author of the *Kushf oo' Zunoon* states the death of the latter to have been A. H. 587; and adds the master was so well pleased with the comment of his scholar, that he gave in marriage to the latter his daughter FATIMAH, who was also learned in the science of jurisprudence. The entire name of the commentary is *Budayia oo' Sunayia fee turteeh oo Shurayia*. Both the text and comment are quoted as authorities; but neither is known to be now extant in *India*.

† By ABOOL FUYH MOHUMMUD BIN-I ABOO BUKR, of *Murgheenan*. He is stated, in the *Kushf oo Zunoon*, to have composed the work quoted, A. H. 651, at the College founded by IMAD OOL-MOOLK, in the suburbs of *Sumurkund*. It contains forty sections, on civil transactions *(Moamulat)* only; and being left incomplete at his death, was finished by his son, JUMAL OO' DEEN. A copy is among the books of the *Nizamut Adalut*, and it is considered a work of authority.

of just reasoning; and experience in human affairs and usages. This is quoted from the *Kafee* *."

HAVING thus stated the authorities for the Mohummudan law, and the preference to be observed, or discretion allowed, when they differ; it may be proper to add a short notice of the books of jurisprudence which are esteemed by the *Huneefeeyah* sect of *Soonee* lawyers, for practical exposition of the temporal law; especially such as are extant and govern judicial decisions in *India*.

ABOO HUNEEFAH himself does not apppear to have left any work upon jurisprudence †. His legal doctrines were recorded and illustrated by his disciples: particularly by IMA'M MOHUMMUD; whose most celebrated law-tracts, entitled the *Jama i-sugheer*, *Jamá-i kubeer*, *Mubsoot*, *Zecadat*, and *Siyur*, have been already noticed, as collectively quoted by the title of *Zahir oo' ruwayat* ‡. These works are described in the *kushf oo'*

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* A commentary on the *Wafee*, and written by the same author IMAM ABOOL BURKAT, ABDOOLLA BIN-I AHMUD, commonly called HAFIZ OO' DEEN, of *Nusuf*, who died A. H. 710. He also wrote the *Kunz oo' Dukaaik*, a work of high authority, and extant in *India*; but eclipsed by its comment the *Buhr-i-Raaik*, composed in the tenth century of the *Hijrah* by ZYN OOL AABIDEEN IBN-I NUJEEM, of *Egypt*. Vid. Tit. *Nogim* of D'HERBELOT, who appears however to have stated the year of his death A. H. 670, instead of 970; which is mentioned more than once in the *Kushf oo' Zunoon*.

† Mr. HAMILTON mentions three treatises, on theological subjects, as written by ABOO HUNEEFAH: viz. the *Masnad*, *Filk-al-elm*, and *Moallim*. Of these the *Moosnud* is described in the *Kushf oo Zunoon*, as a book of traditions. The work apparently intended as the second, but misnamed *Filk-al-elm*, instead of *Fil kulam* (on theology,) is well known in *India*, by the name *Fikh-i-Akbur*. The third is unknown. D'HERBELOT, who seems to have been Mr. HAMILTON's principal authority, mentions the three works, under the title of *Abou-Hanifah*.

‡ Mr. HAMILTON (in his Preliminary Discourse, p. 36.) has inadvertently stated the *Jama-i-kubeer* to be a collection of traditions, called also the *Jama-i-saheeh*, YEESOO MOHUMMUD BIN YESOO AL

Zunoon as being of the first authority for the opinions of ABOO HUNEEFAH and ABOO YOOSUF *, as well as of IMA'M MOHUMMUD. Various commentaries are also stated to have been written upon them during the early age of the Mohummudan era; and several are quoted in the *Futáwa-i Álumgeeree*, compiled in the reign of AU'RUNGZEB †. But neither the texts, or

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TERMAZI. The apparent origin of this mistake has been pointed out in a former note. He further remarks that the author of the *Jama-i-sugheer* is uncertain. But independently of numerous other authorities, IMAM MOHUMMUD is expressly cited in the *Hidayah* as the author of both works, and of the *Mubsoot*. (See Vol. I. of the translation, p. 153.) Mr. HAMILTON has been led into another error, by supposing the *Mubsoot*, quoted in the *Hidayah*, to have been written by FUKR-OOL ISLAM BUZDUVEE; whereas, of the two *Mubsoots* cited by the author of the *Hidayah*, one is the composition of IMAM MOHUMMUD, above noticed; and the other was composed by SHUMS OOL AIMMAH SURUKHSEE, as observed in a preceding note.

* The only work known to have been composed by ABOO YOOSUF is an *Aduh ool Kazee*; and the reputation of this has been superceded by the celebrity of KHUSAF's tract of the same title, already mentioned. He is said, however, to have furnished his pupil, IMAM MOHUMMUD, with notes *(amalee)* for a considerable part of his compositions; particularly for the *Jama-i-sugheer*.

† The principal commentators of the "Jama-i-sugheer" are *Shums ool Aimmah Surukhsee*; *Aboo Bukr Ahmud Razee*, commonly called Jussas, (the plasterer;) Aboo Jafur Ahmud Tahavee; Fukr ool Islam Alee Buzduvee; Aboo Nusur Ahmud ool Itabee of Bokhara; Aboo'l Lys Nusur, of Sumurkund; Aboo Nusur Ahmud, Isbeejabee; Husun bin-i-Munsoor, of Ouzjund, better known by the appellation of Kazee Khan; Taj-oo' deen Abd ool Ghufur Kurdúree; Zuheer oo deen Ahmud Tumurtashee; and Kazee Mussood, of Yuzd; and Aboo seed Mootuhur, of the same city; whose commentary is quoted by the title of "Tuhzeeb." The seven persons first mentioned have also written comments on the "Jama-i-kubeer;" besides Kazee Aboo Zyd Abdoollah, of Duboos; Boorhan oo' deen Mahmood, author of the "Moheet-i-Boorhanee;" Boorhan oo' deen Alee, author of the "Hidayah;" Shums ool Aimmah Mohummud, called Hulwaee (the confectioner;) Ibn-i ubduk Joorjanee; and Jumal oo' deen Mahmud, of Bokhara, whose common designation is Huseeree (the mat-maker;) and whose second commentary is often quoted by the name of "Tukreer." The "Tukreer" and "Doorur" are also known comments on the work in question; the former by Abool Abbas Ahmud; the latter by Nasiroo' deen Mohummud, of Damascus.

comments, are now known to be in *India*, except an imperfect copy of the commencement of KA'ZEE KHAN, on the '*Jámá i-sughéer*,' which was obtained from the library of the Nuwab of *Ouadh*; and is in the possession of the *Nizamut Adalut*. Nor is there a treatise on the Mosulman law, written during the four first centuries of the *Hijrah*, at present, in the possession of any person, from whom enquiry could be made upon the subject at *Calcutta* *.

THE oldest work on jurisprudence in the possession of the law officers of the *Nizámut Adálut*, and other learned Mosulman lawyers, in *Calcutta*, is the *Mokhtusar ool Kudooree*, a compendium, or general law-tract, composed by IMA'M ABOOL HOSE'N AHMUD, of *Kudoor*, a quarter of *Bughdád*, who died A. H. 428. It is often referred to in the *Hidáyah*, and described in the *Kushf oo' Zunoon* as a book of authority in general use, and held in the highest estimation. It is said to contain twelve thousand cases; and has been illustrated in

* It does not appear that any work on jurisprudence was published during the first century of the Hijrah: or that any was written on the doctrines of Aboo Huneefah, during the second century, except the treatises, which have been noticed, of his two disciples Aboo Yoosuf, and Imam Mohummud. In the third and fourth centuries, besides commentaries on the works of the latter, (which as fundamental authorities, are denominated Osool or Original) the following law-tracts are stated to have been composed; and are briefly described in the "Kushf oo' Zunoon." An "Adub ool Kazee", and "Nuwadir," by Mohummud bin-i-Sumaah, who died A. H. 233. Another treatise, of the former title, by Aboo Hazim Abd ool Humeed, who died in 292. Several treatises of the latter title, by Ibn-i-Rustum, Hisham, and others. Also books of both titles, and a compendium of the law, entitled "Mokhtusur-i Tahavee," by boo Jafur Ahmud of Taba in Egypt, who died A. H. 371; and who seems to be the author erroneously cited by the name of Aboo Faka, in Mr. Hamilton's Prel. Dis. p. 38. Another compendium, entitled "Mokhtusur-i Kurkhee," by Aboo'l Hosen Abdoollah of Kurkh (a ward in the city of Bughdad) who died A. H. 340. And a "Nuwadir," with two other books, entitled "Ouzoon" and "Nuwazil", by Aboo'l Lys Nusur, of Sumurkund.

numerous commentaries; among which several are quoted in the *Futáwá-i Aálumgeeree*; but are not now known to be extant in *Hindostan* *.

THE other books in actual use for expounding the Mohummudan law are of two descriptions. The first consists of texts and comments, which, in a scientific method, state the elements and principles of the law; establish them by proofs and reasoning; and illustrate the application of them by select cases, real or supposed; such as the *Hidáyah*, *Kunz oo' dukáyah*, *Vikáyah*, *Nikáyah*, and *Ashbah o' Nuzáyir*, with their respective commentaries. The second description is commonly, but not always, distinguished by the title of *Futáwá*; and is, for the most part, a collection of law cases, arranged under proper heads, with a short recital of facts and circumstances, without arguments, and with authorities only for the cases as quoted; being intended chiefly for practical purposes; whereas the elementary

* The titles and authors of the principal commentaries are as follows. The "Siraj-i Wuhhaj," and "Jouhurah-i-nyyirah" (the latter abridged from the former) by Aboo Bukr bin-i-Alee, commonly called Hudadee (the blacksmith). Ahmud bin-i-Móhummud also made an abridgement of the "Siraj-i-Wuhhaj," which is quoted by the title of "Bu hur-i-Zakhir." The "Mooltumus ool ikhwan" by Aboo'l Ma'lee, of Ghuzna. The "Kifayah," by Shums ool aimmah Ismaeel, of Bykuk. The "Biyan," by Mohummud bin-i-rusool of Toukat. The "Lobab" by Julal aboo Saeed Mootuhur, of Buzdah. The "Yunabee" by Budr oo' deen Mohummud, of Ushbeeleeah. The "Khulasut oo' dulaeel," by Hosam oo' deen Alee, of Mukkah. The last mentioned commentary is highly praised, for its utility, in the "Kushf oo' Zunoon," and is stated to have been further improved by the annotations of Ibn-i Subeeh oo' deen Osman, a native of Tartary. Mr. HAMILTON, (in his Prel. Disc. p. 56, 37,) has erroneously mentioned the commentary of Kudooree, as quoted in the "Hidayah," instead of his Mokhtusur." He appears to have made a further mistake in stating the commentary of Kudooree to be about the "Adub ool Kazee" of Aboo Yoosuf, whereas no comment of that work is noticed in the "Kushf oo' Zunoon;" but Kudooree is specified as one of the commentators of the "Adub ool Kazee" of Khusaf, mentioned in a preceding note.

works first mentioned are more calculated for study and instruction. The *Futawa i Kázee Khan* by FUKR oo' DEEN HUSUN, of *Oúzjúnd* in *Furghaná*, who was contemporary with the author of the *Hidáyah*, and whose collection is esteemed of equal authority with that celebrated work, must, in some measure, be excepted from the above remark; as it illustrates many cases by the proofs and reasoning upon which the decision of them is founded *.

THE other *Futáwá* extant in *inam*, besides those already mentioned in the preceding pages and notes, are the *Khuzánut ool Mooftieen*, *Futáwá-i-Buzáziyah*, *Futáwá-i-Nukshbundiyah*, *Mun' hool ghufar*, and *Mokhtár ool Futáwá* by unknown authors; the *Foosool-i-Isturooshee*, by MOHUMMUD BIN-I MAHMOOD, who compiled it in the 625th year of the *Hijrah* †; the *Futáwá i Ibráheemsháhiyah*, by SHA'HAB oo' DEEN AHMUD, a native of *Hindoostan*, who composed it for SOOLTA'N IBRA'HEEM SHA'H, at *Jounpoor*, in the 9th century of the

* A complete and accurate copy of the "Futawa-i Kazee Khan," supposed to have formerly belonged to the royal library, is among the books of the *Nizamut Adalut*, obtained from *Lukhnow*. The author of the "Kushf oo' Zunoon" and the present *Kazee oo Koozat*, concur in extolling this work, as replete with cases of common occurrence, and consequently of particular utility for practical reference. A digest ("Moruttub") of the cases recited in it is also mentioned in the "Kushf oo' Zunoon," as made in the seventh century of the Hijrah, by a learned Syrian, named Mohummud bin-i-Moostufaafunder, and entitled "Wuhhajoo' Shureeut."

† The court of *Nizamut Adalut* have a complete copy of this compilation, presented to them, with six other law books purchased at Lukhnow, by the *Kazee ool Koozat*, Mohummud Nujm oo' deen. It consists of thirty sections, upon "Moamulat" only: like the "Foosool ool Imadeeyah," beforementioned. The contents of both were arranged and incorporated in a collection, entitled "Jami-ool Foosoolyn," by Budr oo' deen Mahmood; better known by the name of Ibni-Kazee-i-Sumawunah, who died A. H. 823. The author of the "Kushf oo' Zunoon" states this work to be in great estimation with the learned, as a civil digest; but though often quoted as an authority, it is not known to be at present in India.

*Hijrah**; and the *Fătawá-i Aálumgeeree*, compiled at *Dehli*, by order of the Emperor AA'LUMGEER) in the 11th year of his reign, corresponding with A. H. 1067.

THE *Hidayah* is so well known, from the *English* version of it, made by Mr. CHARLES HAMILTON, and published in the year 1791, that it will be unnecessary to say much of it. The *kázee ool koozát*, in his catalogue of books already adverted to, describes it in the following terms. "The *Hidayah* is a commentary upon the *Bidayut ool Moobtudee*, and both the text and comments were composed by SAY'KH BOORHA'N OO' DEEN ALEE, son of ABOO BUKR, of *Murgheenan*, who lived to the age of sixty-two; and, after employing thirteen years in the composition of the latter work, departed from this world A. H. 598. The general arrangement, and division of it, are adopted from the *Jama-i-Sugheer of* IMA'M MOHUMMUD. It is celebrated amongst the learned for its selection of law cases, and connection of them with the proofs and arguments by which they have been determined. Wherefore in every age it has been esteemed by lawyers; many of whom have written comments and annotations upon it." It is spoken of in nearly the same language, by the author of the *Kushf oo' Zunoon* who adds, "it is a rule observed by the composer of this work to state first the opinions and arguments of the two disciples (ABOO YOOSUF and IMA'M MOHUMMUD); afterwards the doctrine of the

* Ibraheem Shah reigned at Jounpoor (during the confusion of the Empire of Dehly, consequent to the invasion of Tymoor) for forty years, and died A. H. 844. The court of *Nizamut Adalut* possess an entire copy of the work referred to: but it is a mixed collection, and not deemed authoritative.

great IMA'M (ABOO HUNEEFAH); and then to expatiate on the proofs adduced by the latter, in such manner as to refute any opposite reasoning on the part of the disciples. Whenever he deviates from this rule it may be inferred that he inclines to the opinion of ABOO YOOSUF and IMA'M MOHUMMUD. It is also his practice to illustrate the cases specified in the *Jama-i Sughcer*, and by KUDOOREE: intending the latter, whenever he uses the expression *he has said in the book*. In praise of the *Hidayah*, it has been declared, like the *koran*, to have superseded all previous books on the law; that all persons should remember the rules prescribed in it; and that it should be followed as a guide through life." This eulogium on the *Hidayah* is confirmed in a paper written by MOU'LAVEE MOHUMMUD RA'SHID, one of the *Mooftees* of the Supréme Court of Judicature and Courts of *Sudr Deewánee* and *Nizámut Adálut*, as well as one of the most learned Mosulmans in *India*; who remarks on the text, and some of the principal comments, to the following effect. "No text or commentary, now extant, can be compared with the *Hidáyah* as a digest of approved law cases, illustrated by the proofs and arguments which establish them. It is therefore, with its comments, fit to be the standard of legal decision in the present times. Many commentaries have been written upon it: but four only, the *Nihayah*, *Inayah*, *Kifayah* and *Futh ool kudeer*, are forthcoming in *Bengal*. The *Nihayah* was first composed: and has superior credit as being the original from which the others have borrowed. But the author of the *Inayah* has merited esteem by his studious analysis; and interpretation of the letter and meaning of *Hidayah*. The *kifayah* also deserves commendation, from its concise statement of the substance of other commentaries, as well as from some additions to them. And the *Futh ool kudeer* is preferable to the whole, as an ample collection of cases,

(rendering it equal in this respect to a *Fatawa*) expressed with suitable brevity of language *."

THE *Kunz oo' dukayik* has been already mentioned, as composed by HA'FIZ OO DEEN, author of the *Kafee* and *Wafee*. It is a short general treatise of law, used

* The "Nihayah" was composed by Hosam oo'deen Hosen Ibni Alee, said to have been a pupil of Boorhan oo deen, author of the "Hidayah." The latter having, from some unknown cause, omitted the law of inheritance, it has been added by the commentator. But this part of the "Nihayah" does not appear to have obtained equal celebrity with the "Fura, e-z--sirajee-yah" mentioned in a former note. The "Kushf oo' Zunnoon" notices two commentaries of the title of "Inayah;" the first of which was commenced by Abool Abas Ahmud, a Kazee in Egypt, who died A. H. 710; and was completed in the succeeding century of the Hijrah by Kazee Saeed oo deen, of Dubur. The second, which is that referred to as extant in India, was composed by Shykh Akmul oo' deen Mohummud, who died A. H. 786; Imam oo' deen Ameer Katib Bin-i Ameer Omur, who had previously written another commentary entitled "Ghayutool biyan" after employing himself for twenty-seven years at Cairo, and other places, to render his second work more complete, finished the "Kifayah," at Damascus, in the 747th year of the Hijrah. The "Futh ool Kudeer" is stated to have been commenced by its author Kumal oo' deen Mohummud of Seewas, commonly called Ibn-i-Homam, in the 29th year of the Hijrah; and to have occupied a considerable part of the remaining period of his life, which was terminated in 861. Other commentaries upon the "Hidayah" are mentioned in the "Kushf oo' Zunoon;" but as they are not procurable in India, it will be sufficient to notice the "Fuwaeed," by Humeed oo deen Alee, of Bokhara, who died A. H. 607; and is supposed by some to have been the first commentator; but his tract, being extremely brief, has been superseded by the subsequent commentators: the "Miarai oo dirayut," by Kuwam oo' deen Mohummud, also of Bokhara, who died A. H. 747; and whose commentary is quoted in the "Salungeeree" and the "Odah" by Kumal oo' deen Mohummud, also quoted; though it is described as rather an abstract, than a commentary, being a methodical collection of the law cases contained in the "Hidayah," without the arguments stated in proof of them. The "Nihayah ool Kifayah," by Tajoo' Shureeyut Omur, is also mentioned in the "Kushf oo' Zunoon" as a commentary on the "Hidayah;" but the *Kazee ool Koozat*, in describing an imperfect copy of it belonging to the *Nizamut Adalut*, terms it a "Hasheeah," or marginal note book. An incomplete copy of the "Kifayah" is also among the law books of that court.

in Mosulman colleges, as an elementary book of instruction; but superseded, as a book of reference for legal exposition, by its commentaries; of which the following are extant in *India*. The *Tubieen ool hukayik*, by BUKR OO' DEEN ABOO MOHUMMUD ASMAN of *Zyl*, who died A. H. 743. His comment is valued by the followers of ABOO HUNEEFAH, as containing a complete refutation of the opposite doctrine of SHAFIIEE. The *Buhr oo' rayik*, by the learned ZY'N OOL AABIDEEN IBN-I NUJEEM of *Egypt*, left incomplete, at his death, A. H. 970; and unequally finished by his brother SIRAJ OO' DEEN OMUR, who also wrote a commentary entitled the *Nuhrifayik*, but of inferior merit to that of ZY'N OOL AA'BIDEEN; which is held in the utmost estimation: and is spoken of in the *kushf oo' Zunoon* as equalled only by the *Futh ool Kudeer*; IBN-I HOMA'M'S commentary on the *Hidayah*. The *Mutlubi fayik* or, as more generally called *Aynee* by RUDR OO' DEEN MOHUMMUD AY'NEE, of *Dubur* in *Arabia*. This commentary is also esteemed, as containing an ample collection of law cases: and though surpassed, in this respect, by the *Buhr-i-rayik*, it has the advantage of having been brought to a conclusion by the author; whose erudition obtained him the title of *Ulamah*, in common with ZY'N OOL AA'BIDEEN *.

* Another commentary on the "Kunz oo dukayik," entitled "Maadun," is known in India. But the name of the author has not been ascertained. The "Eezah" by Shykh Yahya, and "Rumz ool Hukayik" by Kazee Budr oo deen Mahmood, are also noticed, with the names of some other commentators, in the "Kushf oo' Zunoon;" but they are not celebrated, or quoted as as authorities. The court of *Nizamut Adalut* possess an incomplete copy of the "Buhroo' rayik;" on which the *Kazee ool Koozat* remarks (in his catalogue) that "it comprises a compilation of cases, general and particular; with the useful result of the author's researches upon a variety of legal questions; and is received as authentic by the followers of Aboo Huneefah in every city of Islam.

THE text of the *Vikáyah*, composed in the 7th century of the *Hijrah* by BOORHA'N OO' SHUREEUT MAHMOOD, son of the first *Sudr oo Shuceût* like that of the *Kunz oo' Dukàyik*, has been superseded, for legal consultation, by its more extensive commentaries; especially by that of the second *Sudr oo' Shureeût*, OBY'D OOLLAH BIN-I-MUSAOOD, who died A. H. 700; distinguished by the title of *Shurh-i-Vikáyah*; and combining, with the original treatise, an ample comment in illuſtration of it. But both are used in Mosulman Colleges, for instruction in the science of law, preparatory to the study of the *Hidáyah*; upon which the *Vikáyah* is founded; being, as its title at length imports, (*Vikáyut oo' riwayah, fee Musá,eel il Hidáyah*;) the *Custos*, guardián, or preserver, of the reports of cases in the *Hidáyah*. Other commentaries are mentioned in the *Kushf oo' Zunoon*; but they are not known to be extant in *India*; or quoted as authorities. *

* Numerous *Huwashee*, or books of annotations, have also been written on the text and commentaries; of which the most celebrated is the *Hasheeah* of YOOSUF BIN-I JONYD, commonly called AKKEF CHULPEE. This work, entitled *Zukheerut ool Okba* is in the possession of the court of *Nizamut Adalut*, who have also a correct and complete copy of the *Shurh-i-Vikayah*. It may be useful to add that a *Persian* translation of the latter has been made by a person named ABD OOL HUK SUJAWAL, of *Surhind*; who in his preface, states it to have been completed A. H. 1076; during the reign of AURUNGZEB. A copy of this version is in my possession. The language is not elegant; but it bears the character of accuracy; and with a careful revision, it may deserve publication. In bulk it does not much exceed a fourth of the *Persian* version of the *Hidáyah*; made by the former chief *Kazee*, GHOLAM YUHYA KHAN, and his learned associates, employed for that purpose under the patronage of Mr. HASTINGS; a revised edition of which, under the superintendence of Mou'lavee Mohummud Rashid, is now printing, at my suggestion, by order of Government; and besides facilitating the study of the *Arabic* text, will tend to explain and correct the *English* translation; which, though on the whole deserving of praise, has been found in some parts inaccurate, and in many less intelligible than the *Persian* version. It may be proper to add in this

The *Vikáyah* was abridged from the *Vikáyah* by the second Sudr oo' Shureut, already mentioned as the principal commentator on the *Vikáyah*. It is also called *Mokhtúsur i Vikayah*, and used as a book of instruction, the rules and cases contained in it being committed to memory by the student. But its utility, for legal reference, is superseded by its commentaries; of which there are extant, composed by Aboo'l Muka'rim bin-i Abdoollah, A. H. 907; by Abdool Alee, Bin-i-Mohummud Birjinder, in the year 937; and by Shums oo' deen Mohummud, of *Khoristan*, in 941. The whole of these comments are held in esteem; but the latter, entitled *Jamá oo' rumooz*, is the most copious.

The *Ashbah ó Nuzayir* is an elementary treatise, composed in the tenth century of the *Hijrah*, by Zyn ool Aa'bideen, already mentioned as the author of the *Buhr-i-áyik*. It is stated in the *Kushf oo Zunoon* to consist of seven sections, (denominated fun); the two first of which relate to the general principles and rules of law; and the *kázee ool koozat*. in describing a copy of it, which belongs to the *Nizámut Adálut*, observes, that "although a short tract, it contains legal *principia*, from which numerous cases may be deduced; wherefore to able lawyers it is of the utmost advantage." Thirteen commentaries upon it are noticed in the *Kushf oo' Zunoon*, but none of them are known to be in *India*. †

place, that in noticing, for obvious reasons, what has appeared upon inquiry to be erroneous or deficient in the late Mr. Hamilton's translation of the "Hidayah," no intention whatever is entertained of impeaching the personal merits or reputation of that gentleman; who laboured under a material disadvantage in not having completed his arduous and laudable undertaking in *India*.

* Complete copies of the three commentaries are among the books procured from Lukhnow, for the court of *Nizámut Adálut*.

† Mou'lavee Mohumud Rashid possesses two commentaries on the Ashba o Nuza'yir, one of which, called the "Ghumzool Oyoon,

BESIDES the texts and commentaries above described, as in actual use for legal expositions, the *Mujmá oo buhryn*, a text book composed by MOZUFFER OO' DEEN AHMUD, of *Bughdád*, A. H. 690, is also in the possession of a learned Mosulman in *Calcutta*, * together with one of its commentaries, written by ABD OO' LUTEEF BIN-I-ABD OOL AZEEZ; but as no other copy of either the text or comment is known to be forthcoming; they cannot be in general use. †

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was written by Syyid ahmud bin-i-Mohummud Humavee. The author of the other is unknown.

* Moúlavee Kureem oo deen, by whom (in concert with Moúlavee Mohummud Ra'shid) I have been materially assisted in preparing the short account given of books on the Mohummudan law; and who has made for me a complete Persian translation from the Arabic original of the "Kushf oo Zunoon." He received the "Majmâ-ool buhry'n," and its commentary, from Shura'at Mohummud Khan, MeerMoonshee to the Nuwab Mozaffur Jung; who supported a Mudrusah at Moorshidabad, in which Kureem oo deen was Modurrir or Lecturer.

† In addition to the books on jurisprudence, which have been noticed; the following are described in the "Kushf oo Zunoon;" but none of them are known to be at present in Hindostan. The "Ajnas" and "Akkam," by Aboôl Abas Ahmud Natiffi, who died A. H. 446; the "Tujnees o' Muzeed" by the author of the "Hidayah;" the "Ha'vee ool Huseeree" by Mohummud-bin-i-Ibraheem, of Huseer, who died A. H. 505. The "Futawa-i-Sobra," by Shaheed Hisam oo deen Omur, who suffered martyrdom in the 536th year of the Hijrah. The "Kholasut ool futawa," by Tahir bin-i-Ahmud, of Bokhara, who died A. H. 542. The Mooltukut," by Nasir oo' deen, Abool Kasim, of Sumurkund; finished A. H. 549. The "Haver ool Koodsee," by Kazee Jumal oo deen Ahmud of Ghuzna, who lived in the latter part of the 6th century of the Hijrah. A "Tulkhees" (abridgment) of the Jama-i-kubeer," by Kumal oo' deen Mohummud, of Khilat, who died A. H. 652. The "Mokhtar," and its commentary, the "Ikhtiyar," by Mujd oo' deen Abdoollah of Moosul, supposed to have flourished in the 7th century of the Hijrah. The "Ghoorur ool Ahkam," and its comment, the "Doorur ool hookham," by Mohummud bin-i Furamoorz, commonly called Moolla Khoosro, who died A. H. 887; and the "Mooltuka ool Abhoor," by Ibraheem bin i-Mohummud Chulpee (a Syrian) finished A. H. 923. Of these works the three last mentioned only are text books. The remainder (excepting the abridgments of Imam Mohummud's great

Of the books of *Futáwá* which have been mentioned, none appear to require further notice, except the *Futáwás-i Álumgeeree.* Mr. Hamilton, by an extraordinary mistake, has stated this work to have been "composed in the *Persian language* *, by the authority and under the inspection of the Emperor Au'rungze'b;" whereas it is well known to have been written in *Arabic*, the usual language of Mohummudan law and science; and to have been translated into *Persian*, by order of the Emperor's daughter, the Princess Zeb oo'Nisa'. Several copies of the *Arabic* original are in *Calcutta*; and some imperfect copies of the *Persian* version; or rather of parts of it †. In the

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"Jama,") are collections of cases, of the nature of "Futawa." A further collection, entitled "Khuzanut ool futawa," by Ahmud bin-i-Mohummud, is among the books of the *Nizamut Adalut*, and supposed by the "Kazee ool Koozat" to have been compiled towards the end of the 8th century of the Hijrah. Also a Persian compilation, named "Futawa-i-Kurakhanee," the cases included in which were collected by Moolla Sudr oo'deen bin-i Yakood, and arranged, some years after his death, by Kura Khan, in the reign of Sooltan ula oo'deen. The Kazee ool Koozat has likewise presented to the Nizamut Adalut a small Persian book, entitled Mokhtsoo'l Ikhtiyar, written A. H. 271, by Ikhtiyar son of Ghyas oodeen Husun; containing, besides the duties of a kazee and moftee, legal forms of various descriptions for practical use.

* Preliminary Discourse, p. 44.

†. Mr. H. Colebrooke possesses a folio volume, containing about half of the entire translation, from the commencement to the book upon evidence. I have also a volume which contains from the book on marriage, to that upon endowments, or religious and charitable appropriations. And, at my suggestion, the Governor General in Council has been pleased to instruct the Resident at Dehly to endeavour to procure two or more complete copies of the Persian version made by order of Zeboo Nisa, with a view to prepare a collated transcript, which may be hereafter printed and published. I have likewise a correct Persian translation of the book on "Jinayat," or offences against the person, made for me, a few years since, by Moulavee Saeed oo deen, (now law officer of the Burely court of circuit) under the superintendence of his father, the Kazee ool Koozat, who has added notes of explanation where they appeared requisite. This version will probably be printed and published, as it well deserves to be.

catalogue of books appertaining to the *Nizámut Adalut* (among which is an incomplete copy of the *Arabic Futawa-i Aalumgeeree*) the *kazee ool koozat* describes this work in the following terms:—"It was commenced A. H. 1067, corresponding with the 11th year of AA'LUMGEER'S reign, Credible persons have related, that when MEERZA' KA'ZIM, author of the *Aalumgeernamah*, had finished, and presented to his Majesty, the history of the first ten years of the reign, it occurred to the King that there were many books of history in the world, and that from the inclination which mankind have to read such books, they are composed without orders from Kings and Nobles; that the foundation of good government is justice; and that this depends upon a knowledge of the ordinances of the law; that although the learned of every age had compiled expositions of the law, yet in some instances the examples were so dispersed that they could not readily be found, when required; and in others, the cases of less weight were not distinguished from those adjudged to be authoritative; whilst some decisions also had been unnecessarily repeated; and others, though requisite, had been omitted; wherefore it was proper that, in the present reign, a new *Futawa* should be compiled, to be arranged in the most approved manner; and to contain the most authoritative decisions of law, including every useful case, which had been adjudged, without repetition or omission. As soon as the King had formed this design, he ordered MEERZA' KAZIM to discontinue writing the *Aalumgeernamah*; and not to take in future the sum allotted for it from the royal treasury. He then assembled a number of eminent lawyers from the *Punjau*, the environs of *Shahjahan abad*, *Akbur abad*, *Ilah-abad*, and the *Dukhun*; and employed them in compiling the work, which was afterwards called the

Futawa-i Aalumgeeree. In truth no other *Futawa* is equal to it in excellence. It has become celebrated in every city, as well in *Arabia* as in other countries; and is termed at *Mecca* the *Futawa-i Hind*, or *Indian* expositions. It is esteemed by the learned of every country, and is received as an authority for law decisions in this empire." It is added, that lacks of rupees are said to have been disbursed in stipends to the learned compilers, the purchase of books, and other expences attending the execution of the work.

THE *Futawa-i Aalumgeeree* being four times the size of the *Hidáyah*, and containing little more than a recital of law cases, without the arguments and proofs, which are diffusively stated in the *Hidayah* it must possess an advantage over that work, for practical use, in its greater number of cases and examples. On the other hand, the full illustration of the law, its principles, and the different doctrines promulgated by some of the most eminent expounders of it, which distinguish the *Hidayah*, as an original composition by a celebrated jurist, who, from his superior knowledge and qualifications, was esteemed a *Mojtahíd*, is also above that of the *Futawa-i Aalumgeeree*; which, however valuable, as the latest and most comprehensive collection of cases, is held in less comparative estimation, from its being a modern compilation, made by several persons, of different judgment, and unequal ability. Without contrasting their respective merits, however, the one is universally admitted to be a most useful supplement to the other; and a conversance in both, or an easy means of reference to them in cases of judicial occurrence, must be of essential use towards the due administration of the Mohummudan law, as far as that law is

declared to be the established rule and standard of decision "

* Mr. HAMILTON's translations of the "Hidayah" renders it unnecessary to state the general contents of that work. The "Futawa-i-Aalumgeeree," consists of 61 books (kitab) in the following order :—1, Tuharut, purification. 2, Sulat, prayer. 3, Zukat, alms. 4, Som, fasting. 5, Hujj, pilgrimage. 6, Nikah, marriage. 7, Ruzáa, foster ge. 8, Tulak, divorce. 9, Utak, manumission. 10, Ayman, vows. 11, Hoodood, fixed penalties. 12, Surikah, larceny. 13, Seyur, institutes or regulations concerning infidels, apostates, apostates, and rebels. 14, Lukeet, foundlings. 15, Looktah, troves. 16, Ibak, absconding of slaves. 17, Mufkood, missing persons. 18, Shirkut, partnership. 19, Waukf, endowment; or religious and charitable appropriation. 20, Bya, sale. 21, Surf, exchange of coin or bullion. 22, Kufalut, bail. 23, Huwalut, transfer of debts. 24, Adub ool Kazee, the duty a Kazee. 25, Shahadut, evidence. 26, Roojooa un Shahadut, retraction of evidence. 27, Vukalut, agency. 28, Dawa, claim. 29, Ikrar, acknowlegdment. 30, Sooln, composition. 31, Mozarubat, copartnership in stock and labour. 32. Wudee, ut, deposit. 33, Adeeyut, lending without return. 34, Hibah, gift. 35, Ijarah, hire and farm. 36, Mokatub, covenanted slave. 37, Wula, connection of emancipator and freedman; or of patron and client. 38, Ikrah, compulsion. 39, Hujr, inhibition and disqualification. 40, Mazoon, licensed slave, and ward. 41, Ghusb, usurpation. 42, Shoofah, right of vicinity. 43, Kismut, partition, 44. Mozaraat, compact of cultivation. 45, Moa,amulut or Mosakat, compact of gardening. 46, Zubayith, animals slain by Zubh, or incision of the throat. 47, Oazheeyah, sacrifice. 48, Kurahiyut, abomination, disapprobation, or censure. 49, Tuhurre, presumptive preference. 50, Ihya ool muwat, cultivation of waste land. 51, Shirb, right to water. 52, Ushrihah, intoxicating liquors. 53, Syd, game. 54, Rihn, pledge. 55, Jinayat, offences against the person. 56, Wusaya, testamentary bequests. 57, Mukazir o Sijillat, judicial proceedings and decrees. 58, Shooroot, legal forms. 59, Hiyu,l legal devices. 60, Khoonsa, hermaprodite. 61, Fura,eez; rules of inheritance.

Of the sixty-one books enumerated, fifty-five correspond with similar titles in the Hidayah. Two other books in the latter work, entitled "Diyut," (the fine of blood), and "Mu,aakil" (exaction of the fine of blood), are included in the "Fatawa-i-Aalumgeeree," as chapters of the book of Jinayat. The book of "Shirb," in the "Fatawa-i-Aalumgeeree," forms a section of the book entitled "Ihyaool muwat" in the "Hidayah." The remaining five books of the "Futawa-i-Aalumgeeree," viz. those entitled "Tuhurree," "Mukazir o

Sijillat," "Shooroot," "Hiyul," and "Fura,eez," are not included in the "Hidayah."

The general division and arrangement of both the "Hidayah," and "Aalumgeeree," appear to have been adopted from the "Jama-i-Sugheer," of Imam Mohummud. The same order is also observed in most other works written by the followers of Aboo Huneefah; and the author of the "Buhr-oo-rayik," has endeavoured to shew to that it is founded on a principle of successive connection. But his reasoning does not appear satisfactory. It may be useful to add, however, that the Mosulman law, in the most extensive sense of the term (*Shura*, or *Deen-i-islam*) comprehends the ordinances of religion, and the duties of men towards his Creator, as well as his rights and obligations towards his fellow creatures. It is therefore stated in the "Bukr-i-rayik," to comprise five principal heads; namely, 1, Iatikadat, articles of faith. 2, Ibadat, acts of worship and piety. 3, Moâamulat, affairs of life, or civil transactions. 4, Muzajir, punishments for the prevention of crimes. 5, Adah, manner, or rules of behaviour. In books of jurisprudence (fik-h) the first and last heads are omitted. The other three are included; and the head of "Ibadat," always precedes the "Moâamulat," and "Muzajir," as of superior importance.

VIII.

An Account *of* Astronomical Observations *taken at the* Honourable Company's Observatory, *near* Fort St. George *in the* East Indies, *in the Years* 1806 *and* 1807. *To which are added some* Remarks *on the* Declination *of certain* Stars *and of the* Sun, *when near the* Zenith *of that Place.*

BY CAPTAIN JOHN WARREN,

OF H. M. 33d REGIMENT OF FOOT.

1. Major Lambton having sent his zenith sector to the *Madras* Observatory in September 1806, I began early in the ensuing month the observations which form the subject of the present paper. As an account of this instrument has already been given to the public, in a paper written by that gentleman, and published in the 8th volume of the Asiatic Researches, I shall only observe here that it came to me in high order, and that I observed constantly with it from October 1806 to June 1807, without perceiving any material change in its powers or mode of performing.

2. In undertaking a series of observations of zenith distances, I had in view to establish permanently the latitude of the *Madras* Observatory, on which there seemed still to be a doubt of several seconds, and also to verify the declination of several stars near the zenith, when used for obtaining the latitudes of places, disagreed in their results.

3. This laborious and dry enquiry, I am aware can afford but little entertainment to the generality of read-

ers. The present paper, therefore, can only claim the advantage of recording good observations, taken in great numbers, and computed with scrupulous attention: and perhaps of affording some data to astronomers in other climates, for further investigation into the effects of refraction.

4. ALTHOUGH the method for correcting zenith distances at any given time, for abbreviation, nutation, and solar equation, is well known to astronomers, yet I do not omit giving a general statement of the manner in which I have applied these various corrections to my observations. Such as belong to *Regulus* are given in Table I. and may serve as an example for the rest. For the detail of each respective rule I must refer the reader to books of astronomy, for I have nothing new to offer on the principles upon which they are grounded.

5. I HAVE however to observe, that refractions being one of the subjects under consideration, I have computed it separately for every star, according to Dr. BRADLEY's theory, in which the state of the atmosphere at the time of observation is considered, and without any reference to the tables. The rule may be found demonstrated in VINCE's *Complete System of Astronomy*, Chap. VIII. page 82, and following. I have reduced it, for a more convenient arrangement, in othe following form:

$$\text{Corrected Refraction } R = \frac{\text{Tangt. } \overline{Z - 3r} \times R' \times \frac{a}{A} \times 400.}{h + 350^{\circ}}$$

The following example will shew the notation.

Example.

The mean observed zenith distance of *Regulus* by observation is $0^{\circ}\ 9'\ 14''.326 = Z$.

The refraction due to 45° altitude, as established by experiments, and very near the level of the sea is $50'' = R'$.*

The mean altitude of barometer at the time of observing was 30.035 inches $= \alpha$.

The general medium height of *Mercury* is $29.6 = A$.

The mean altitude of thermometer at the time of observation was $71° = h$.

Rule.

Tangt. $Z = 0° 9' 14''.326$ log. 7.4293310

$3r = 0.402$ $R' = 50'$ log. 1.6989700

9.1283010 N.N. 0.134

3

$3r = 0.402$

Tangt. $Z - 3r = 0° 9' 13''.924$ log. 7.4290229

$R' = 50'$ log. 1.6989700

$\frac{\alpha}{A} = \frac{30.035}{29.6}$ log. 0.0062636

400 log. 2.6088284

1.7430849

$h + 350 = 421$ log. 2.6232821

Corrected Refract. $R = 0.131$ N.N. 9.1188028

$\alpha = 30.035$ log. 1.4775553

$A = 29.6$ log. 1.4712917

log of $\frac{\alpha}{A}$ 0.0062636

h 71°

350

$h + 30 = 421$

* The quantity R', which represents the refraction due to 45° altitude (where Rad. = 1) is given in BRADLEY'S Tables = 57". But for obvious reasons I have preferred LE GENTIL'S quantity, as his experiments at *Pondicherry* appears to me unexceptionable.

TABLE I.

Shewing the Process of deducing the Latitude from the observed Zenith Distances of Regulus.

Months and Days.	Star's A. R.	☉'s Longitude.	Place of ☾'s ☌	Star's Declin.	Apparent Time of Transit.	Precession.	Nutati.	Abberat	Solar Equation.	Total Equation for Declin.	Total Equation for Z. Dist.	Face of Limb.	Observed Zenith Distance.	Corrected Zenith Distance.
						—	—	—	—	—	—			
Nov. 26.	4ʰ 29ᵐ 31ˢ 2ᵗʰ	8ˢ 4° 7′ 35″	8ˢ 19ʰ 46′	12° 54′ 26″.198	17ʰ 49ᵐ 52ˢ.1	32″.732	6″.494	0″.966	0″.015	40″.207	40″.207	E.	0° 9′ 56″.5	0° 9′ 16″.293
28.	4 29 31 2	8 6 8 49	8 19 40	12 54 26 .104	17 49 0 .2	32 .526	6 .500	1 .215	0 .049	40 .588	40 .588	W.	0 9 51 .8	0 9 10 .212
30.	4 29 31 3	8 8 10 8	8 19 34	12 54 26 .010	17 32 25 .6	32 .920	6 .506	1 .449	0 .084	40 .959	40 .959	E.	0 9 58 .0	0 9 17 .041
Dec. 1.	4 29 31 3	8 9 10 51	8 19 30	12 54 26 .963	17 28 7 .2	32 .967	6 .510	1 .562	0 .101	41 .140	41 .140	W.	0 9 51 .5	0 9 10 .360
4.	4 29 31 3	8 12 13 5	8 19 21	12 54 25 .822	17 13 9 .5	33 .108	6 .519	1 .920	0 .154	41 .701	41 .701	W.	0 9 51 .25	0 9 9 .549
10.	4 29 31 3	8 18 18 8	8 19 1	12 54 25 .539	16 48 56 .9	33 .391	6 .539	2 .613	0 .264	42 .807	42 .807	W.	0 9 51 .5	0 9 8 .693
11.	4 29 31 4	8 19 19 1	8 18 58	12 54 25 .492	16 44 33 .5	33 .438	6 .543	2 .721	0 .281	42 .983	42 .983	E.	0 10 2 .0	0 9 19 .017
12.	4 29 31 4	8 20 19 53	8 18 55	12 54 25 .445	16 40 9 .7	33 .485	6 .546	2 .832	0 .299	43 .122	43 .122	W.	0 9 53 .79	0 9 10 .668
17.	4 29 31 5	8 25 24 34	8 18 39	12 54 25 .299	16 18 5 .8	33 .721	6 .562	3 .377	0 .389	44 .049	44 .049	E.	0 10 2 .0	0 9 17 .951
18.	4 29 31 5	8 26 25 28	8 18 36	12 54 25 .162	16 13 39 .6	33 .768	6 .565	3 .480	0 .406	44 .219	44 .219	W.	0 9 52 .5	0 9 8 .281
19.	4 29 31 5	8 27 26 27	8 18 32	12 54 25 .116	16 9 14 .3	33 .814	6 .568	3 .583	0 .424	44 .389	44 .389	E.	0 10 3 .5	0 9 19 .111
21.	4 29 31 5	8 29 28 20	8 18 27	12 54 25 .021	16 0 22 .3	33 .909	6 .573	3 .788	0 .457	44 .727	44 .727	W.	0 9 54 .0	0 9 9 .273
22.	4 29 31 5	9 0 29 17	8 18 23	12 54 24 .974	15 55 56 .8	33 .956	6 .578	3 .894	0 .474	44 .902	44 .902	E.	0 10 3 .0	0 9 18 .098
26.	4 29 31 6	9 1 30 13	8 18 20	12 54 24 .930	15 51 31 .4	34 .100	6 .581	3 .994	0 .489	45 .164	45 .164	E.	0 10 4 .0	0 9 18 .856
27.	4 29 31 6	9 5 24 5	8 18 6	12 54 24 .759	15 33 48 .9	34 .191	6 .595	4 .358	0 .547	45 .691	45 .691	W.	0 9 56 .0	0 9 10 .309
07 Jan. 2.	4 29 31 7	9 11 40 0	8 17 49	12 54 24 .456	15 7 20 .1	34 .474	6 .611	4 .981	0 .629	46 .695	46 .695	W.	0 9 56 .0	0 9 9 .305
3.	4 29 31 7	9 12 41 2	8 17 45	12 54 24 .409	15 2 30 .2	34 .521	6 .615	5 .000	0 .641	46 .777	46 .777	E.	0 10 5 .0	0 9 18 .223
10.	4 29 31 8	9 19 48 04	8 17 38	12 54 24 .079	14 32 21 .8	34 .851	6 .623	5 .549	0 .705	47 .728	47 .728	E.	0 10 4 .38	0 9 16 .652

RESULTS.

1806-7	Left Arc.	1806-7	Right Arc.
Nov. 26.	0° 9′ 16″.293	28.	0 9 10 .212
30.	0 9 17 .041	Dec. 1.	0 9 10 .360
Dec. 11.	0 9 19 .017	4.	0 9 9 .549
17.	0 9 17 .954	10.	0 9 8 .693
19.	0 9 19 .111	12.	0 9 10 .668
22.	0 9 18 .098	18.	0 9 8 .281
23.	0 9 18 .836	21.	0 9 9 .273
Jan. 3.	0 9 18 .223	27.	0 9 10 .309
10.	0 9 16 .652	Jan. 2.	0 9 9 .305
Mean,	0 9 19 .023		0 9 9 .629
			0 9 19 .023
			0 9 14 .32

Mean.	
Mean,	0° 9′ 14″.326
* Refraction,	+ 0 .131
Micrometer,	+ 0 .051
Tube,	— 0 .004
	0 9 14 .504
Declination,	12 54 58 .950
Latitude,	13 4 13 .454

* For Refraction see paragraph 5, in paper.

TABLE II.

Shewing the Latitude for the Madras *Observatory such as derived from* 12 *Principal Stars.*

I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
Names and Characters of Stars.	*Magnitudes.*	*Num. of Obs.*	*Interval during when observed.*	*Mean Declination from Greenw. Cat. for* 1803.	*Observed Zen. distances corrected for Aber. Nut. and Solar Equation.*	*Mean height of Barometer during Observation.*	*Thermometer.*	*Refraction.*	*Corrected Zenith distances.*	*Latitudes.*	*Mean by Northern and Southern Stars.*	*Mean Latitude.*
						Inches.						
Arcturus, ..	1	20	Feb. 6. Mar. 20.	20° 1 2′ 14″.426	7° 7 52″.639	29.975	75°	6″.051	7° 7′ 58″.690	13° 4′ 15″.736		
Aldebaran,	1	16	Oct. 30. Dec. 9.	16 6 23 .830	3 2 7 .348	29.983	77	2 .557	3 2 9 .905	13 .829		
Leonis, ...	2	20	Jan. 2. Feb. 24.	15 [illegible]9 48 .544	2 35 31 .288	30.019	74	2 .197	2 35 33 .485	15 .077		
Herculis, ..	3	16	Mar. 27. Apr. 24.	14 [illegible]7 27 .091	1 33 10 .870	29.942	81	1 .288	1 33 12 .158	14 .933		
Pegasi, ...	2	16	Oct. 25. Nov. 14.	14 9 38 .050	1 5 22 .312	29.966	83	0 .902	1 5 23 .214	14 .836		
Pegasi, ...	2	12	Oct. 25. Nov. 14.	14 6 4 .906	1 1 47 .135	29.966	81	0 .856	1 1 47 .991	13 .915	13° 4′ 14″.721	
												13° 4′ 17″.[illegible]
Regulus, ..	1	18	Nov. 28. Jan. 12.	12 [illegible]4 58 .930	0 9 14 .326	30.035	71	0 .131	0 9 14 .504	13 4 13 .434		
Ophiuchi, ..	2	10	Mar. 15. Apr. 22.	12 4[illegible]2 50 .910	0 21 22 .362	29.993	84	0 .293	0 21 22 .655	13 .565		
Attair, ...	2	16	Apr. 28. Jan. 9.	8 2[illegible]1 53 .530	4 42 15 .821	29.862	85	3 .874	4 42 19 .695	13 .225		
Orionis, ..	1	20	Nov. 7. Jan. 15.	7 2[illegible]1 36 .670	5 42 29 .526	30.035	74	4 .855	5 42 34 .381	11 .051		
Serpentis, ..	2.3	12	Mar. 9. Apr. 9.	7 2 59 .390	6 1 8 .002	29.993	80	5 .043	6 1 13 .045	12 .435		
Procyon, ..	1.2	16	Nov. 8. Jan. 23.	5 4[illegible]3 0 .010	7 21 5 .522	30.035	73	6 .280	7 21 11 .802	11 .812	13 4 12 .587	

TABLE III.

Shewing the Latitudes for the Madras *Observatory such as deduced from 52 Stars near the Zenith by 500 Observations.*

I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.
Names and characters of Stars.	Magnitudes.	No. of Obs.	Period during which observed.	Mean Declinations January 1805.	Corrected Zenith distances minus Refrac.	Refraction.	Corrected Zenith Distances.	Latitudes.	Corrected Declinations for Jan. 1805.	
ζ Geminorum	3	16	Feb. 19. March 30.	20° 50′ 43″	7° 46′ 18″.373	6′.536	7° 46′ 24″.909	13° 4′ 18″.091	20° 50′ 38″.343	−4″.657
γ Leonis	3	10	Dec. 21. Jan. 12.	20 49 26	7 45 4.151	6.540	7 45 10.691	15.309	20 49 24.125	−1.875
Arcturus ..	1	20	Feb. 6. March 20.	20 12 14.42	7 7 52.639	6.051	7 7 58.690	15.736	20 12 12.124	−2.296
ζ Bootis	3	6	May 10. and 27.	19 55 6	6 50 42.566	5.731	6 50 48.297	17.703	19 55 0.731	−5.269
β Arietis	3	10	Oct. 28. Nov. 13.	19 51 2	6 46 42.181	5.679	6 46 47.860	14.140	19 51 1.294	−0.706
η Bootis	3	8	Jan. 24. Feb. 11.	19 22 58	6 18 30.041	5.332	6 18 35.373	22.627	19 22 48.907	−9.093
δ Arietis	4	12	Oct. 28. Nov. 14.	18 58 50.95	5 54 32.869	5.010	5 54 37.879	13.071	18 58 51.313	+0.363
δ Cancri	4	18	Nov. 30. April 10.	18 51 47	5 47 26.541	4.913	5 47 31.454	15.546	18 51 44.888	−2.112
5 ε Sagittæ	4	6	April 28. May 5.	17 34 34	4 30 11.164	3.720	4 30 14.884	19.116	17 34 28.318	−5.682
π Bootis	3.4	6	March 5. and 20.	17 15 46	4 11 25.581	3.506	4 11 29.087	16.913	17 15 42.521	−3.479
γ Geminorum	2.3	14	Dec. 2. Feb. 12.	16 33 18	3 28 59.806	3.216	3 29 3.022	14.978	16 33 16.456	−1.544
θ Leonis	3	8	Dec. 10. Jan. 2.	16 29 40	3 25 26.001	2.994	3 25 28.995	11.005	16 29 42.429	+2.429
γ Serpentis ..	3	8	March 12. April 5.	16 18 35	3 14 11.483	2.705	3 14 14.188	20.812	16 18 27.702	−7.298
Aldebaran ..	1	20	Oct. 30. Dec. 9.	16 6 23	3 2 7.348	2.557	3 2 9.905	13.829	16 06 23.359	+0.339
β Leonis	2	20	Jan. 2. Feb. 24.	15 39 45.28	2 35 31.228	2.197	2 35 33.485	15.077	15 39 46.919	+1.639
γ Tauri	3	12	Oct. 28. Nov. 13.	15 8 49	2 4 34.103	1.748	2 4 35.851	13.149	15 8 49.285	+0.285
α Herculis ..	3	16	March 27. April 24.	14 37 27.09	1 33 10.870	1.228	1 33 12.158	14.933	14 37 25.592	−1.498
α Pegasi	2	16	Oct. 25. Nov. 13.	14 9 38.05	1 5 22.312	0.902	1 5 23.214	14.836	14 9 36.648	−1.402
γ Pegasi	2	12	Oct. 25. Nov. 14.	14 6 1.906	1 1 47.135	1.857	1 1 47.991	13.915	16 6 1.425	−0.476
β Delphini ..	3	8	Oct. 24. Nov. 6.	13 55 36	0 51 21.905	0.709	0 51 22.614	13.386	13 55 36.048	+0.048
λ Orionis	4.5	6	Jan. 14. Feb. 7.	13 54 54	0 50 44.213	0.713	0 50 44.926	9.076	13 54 58.360	+4.360
ζ Aquilæ	3.4	4	April 28. May 2.	13 35 8	0 30 49.051	0.423	0 30 49.474	18.526	13 35 2.905	−5.095
ν Orionis ..	4.5	4	Feb. 19. and 26.	13 11 48	0 7 33.171	0.104	0 7 33.275	14.325	13 11 46.709	−1.291
			Mean Latitude from the whole,		13 4 13.293		Mean of Star's N. of Zen.		13 4 15.482	

	Names of Stars.	Mag.	No. of Obs.	Period during which obs.	Mea. Dec. 1805.	Cor. Z. d.—Refraction.	Refraction.	Cor. Z. dist.	Latitudes.	Cor. Declin.	Differences.
	Regulus	1	18	Nov. 28. Jan. 12.	12° 54′ 58″.93	0° 9′ 14″.326	0″.131	0° 9 14″.504	13° 4′ 13″.434	12° 54′ 58″.930	— 0″.000
α	Ophiuchi	2	12	March 15. April 22.	12 42 50 .91	0 21 22 .362	0 .293	0 21 22 .655	13 .565	12 42 50 .779	— 0 .131
α	2 Canceri	4	16	Nov. 10. Jan. 10.	12 36 18 .0	0 27 55 .057	0 .395	0 27 55 .452	13 .452	12 36 17 .982	— 0 .018
α	1 Canceri	4	6	April 15. and 29.	12 21 48 .0	0 42 21 .166	0 .579	0 42 21 .745	9 .745	12 21 51 .689	+ 3 .689
5 ξ	Leonis	4	4	April 15. May 5.	12 9 28 .0	0 54 46 .352	0 .791	0 54 47 .143	15 .143	12 9 26 .291	— 1 .709
	Virginis	3	18	Jan. 12. March 4.	12 0 40	1 3 31 .500	0 .958	1 3 32 .458	12 .458	12 0 41 .042	+ 1 .042
h	Herculis	4	8	March 26. April 7.	11 55 5	1 9 8 .678	1 .203	1 9 9 .881	14 .636	11 55 3 .798	— 1 .202
	Leonis	4	6	May 12. and 30.	11 36 12	1 27 57 .806	1 .333	1 27 59 .139	11 .009	11 36 14 .425	+ 2 .425
	Canceri	4	6	April 10. May 1.	11 26 45	1 37 23 .593	1 .561	1 37 25 .154	9 .926	11 26 48 .508	+ 3 .508
δ	Serpentis	3	8	March 11. April 6.	11 12 4	1 52 9 .203	1 .961	1 52 11 .164	14 .764	11 12 2 .670	— 1 .330
	Leonis	4	8	Dec. 1. Jan. 8.	10 46 25	2 17 43 .940	1 .984	2 17 45 .924	10 .901	10 46 27 .533	+ 2 .533
	Delphini	4	6	May 2. June 11.	10 39 5	2 24 51 .228	2 .147	2 24 53 .375	3 58 .212	10 39 20 .222	+15 .222
25 ε	Ophiuchi	2	18	March 11. April 15.	10 29 54	2 34 18 .886	2 .335	2 34 21 .221	4 15 .033	10 29 52 .401	— 1 .599
	Leonis	4	8	Dec. 10. Jan. 8.	10 18 28	2 45 42 .388	2 .510	2 45 44 .898	8 .053	10 18 33 .381	+ 5 .381
15	Unicorn	4	6	Feb. 19. March 20.	10 3 57	3 0 10 .875	2 .800	3 0 13 .675	10 .383	10 4 0 .049	+ 3 .049
β	Canceri	3.4	12	Nov. 19. Dec. 21.	9 46 29	3 17 27 .977	2 .870	3 17 30 .847	3 59 .777	10 46 42 .657	+13 .657
μ	Orionis	4	8	Feb. 19. March 4.	9 38 10	3 26 0 .693	3 .209	3 26 3 .902	4 14 .363	9 38 9 .871	— 0 .129
μ	Ceti	4	10	Jan. 12. and 28.	9 17 6	3 46 59 .187	3 .392	3 47 2 .579	8 .396	9 17 11 .038	+ 5 .038
	Pegasi	2	14	Oct. 28. Nov. 14.	8 59 18	4 4 49 .456	3 .791	4 4 53 .247	10 .848	8 59 20 .586	+ 2 .586
π	Orionis	4	12	Nov. 8. Dec. 4.	8 33 17	4 30 44 .501	4 .018	4 30 48 .519	5 .292	8 33 25 .142	+ 8 .142
χ	Leonis	4	6	Dec. 21. June 2.	8 23 20	4 40 48 .397	3 .874	4 40 52 .271	12 .415	8 23 21 .019	— 1 .019
α	Aquilæ	1	16	April 28. Jan. 9.	8 21 53	4 42 15 .821	4 .467	4 42 20 .288	13 .225	8 21 53 .739	— 0 .739
	Virginis	4	4	May 12. and 25.	7 37 26	5 26 45 .945	4 .855	5 26 50 .800	16 .412	7 37 23 .022	— 2 .978
α	Orionis	1	20	Nov. 7. Jan. 15.	7 21 37	5 42 29 .526	5 .089	5 42 34 .615	11 .051	7 21 39 .053	+ 2 .053
σ	Leonis	4.5	12	Dec. 19. Jan. 21.	7 5 48	5 58 15 .794	5 .043	5 58 20 .837	8 .883	7 5 52 .551	+ 4 .551
α	Serpentis	2.3	12	March 9. April 9.	7 2 59 .39	6 1 8 .002	5 .024	6 1 13 .026	12 .435	7 3 0 .389	+ 0 .999
μ	Aquilæ	4	12	May 1. June 5.	6 58 38	6 5 32 .359	5 .865	6 5 37 .224	15 .383	6 58 36 .051	— 1 .949
γ	Orionis	2	14	Jan. 10. Feb. 18.	6 9 43	6 54 22 .193	5 .266	6 54 27 .459	11 .158	6 9 45 .276	+ 2 .276
	Procyon	1.2	14	Nov. 8. Jan. 23.	5 43 0 .01	7 21 5 .552	6 .260	7 21 11 .812	11 .812	5 43 1 .632	+ 1 .622

Mean of Stars South of Zenith·· 13 4 11 .113

TABLE IV.

Shewing the Latitudes given by Stars, as observed North or South of the Zenith.

Name of Places where observed.	Names and Number of Stars observed by.	Latitudes by Stars North of the Zenith.	Latitudes by Stars South of the Zenith.	Excess by North of Zenith.	Mean Latitudes.
Coringa, in the Northern Circars.	By 15 Stars North of Zenith, with Sextant	16° 48′ 42″. 5	.....	6″. 8	16° 48′ 39″
	40 Stars South of Zenith. Mr. TOPPING	.....	16° 48′ 35″. 7		
Paughur, in the Mysore.	ι Bootis, δ Leonis, β Leonis	14 6 20.312	.....	2.393	14 6 19.165
	ι Virginis, Regulus, ο Leonis. Major LAMBTON	.....	14 6 17.919		
Paudree, in the Carnatic.	Aldebaran	13 19 49.018	.....	8.648	13 19 44.69
	α Orionis, Regulus. Major LAMBTON	.....	13 19 40.370		
	TABLE II.				
	Arcturus, Aldebaran, β Leonis, α Herculis, α Pegasi, .. γ Pegasi, Regulus, α Ophiuchi, Attair, α Orionis, α Serpentis, Procyon,	13 4 14.721	..... 13 4 12.587	2.134	
	TABLE III.				
	By 23 Stars N. of Zenith, with the Zenith Sector	13 4 15.482	.....	4.369	
	29 Stars S. of Zenith	.....	13 4 11.113		
	TABLE V.				
Observatory, near Fort St. George.	By 11 Observations of ⊙ N. of Zenith	13 4 4.449	.....	2.242	13 4 13.69
	9 Observations of ⊙ S. of Zenith	.....	13 4 2.207		
	Observations by Mr. GOLDINGHAM *and Mr.* TOPPING.				
	Arcturus, δ Arietis, Aldebaran, Markab, β Delphini .. Regulus, α Ophiuchi, Attair, α Orionis, α Serpentis, Z. S.	13 4 11.62	..... 13 4 6.53	5.09	
	By 25 Stars, very near the Zenith N.	13 4 6.10	.....	1.54	
	25 Stars South, and very near the Zenith, Circular Inst.	.....	13 4 4.76		
	By 30 Observations of ⊙ N. of Zenith	13 4 6.45	.....	1.58	
	26 Observations of ⊙ S. of Zenith. Zen. Sector	.....	13 4 4.87		
	By 25 Stars N. of Zenith	13 4 12.47	.....	6.17	
	25 Stars S. of Zenith, with Sextant	.....	13 4 6.30		
Dodagoonta, near Bangalore, in the Mysore.	Arcturus, α Herculis, Markab, γ Pegasi ..... α Ophiuchi, γ Aquilæ, Attair, α Serpentis, β Aquilæ, .. γ Herculis, α Sagittæ, γ Serpt. ξ Bootis, and	13 0 1.04	..... 12 59 59.0	2.04	12 59 55.49
	β Delphini (second set by Major LAMBTON) ..... ι Virginis, δ Serpentis	12 59 54.89	..... 12 59 47.26	7.63	
Trivandaporam, in the Carnatic.	Aldebaran, Regulus ..... α Orionis	11 44 50.55	..... 11 44 41.45	9.50	11 44 47.78

TABLE V.

Zenith Distances and Latitudes by the Sun, April and May, 1807.

Days on which observed.	Zenith dist. of ⊙'s centre.	Corresponding Latitudes.	Mean of Lat. by Northern and Southern Z. distances.	Mean Lat.
April 15.	3° 36′ 49″ .849	13° 4′ 4″.949		
16.	3 15 19 .065	4 3 .265		
18.	2 32 35 .999	4 7 .619		
19.	2 11 52 .124	4 8 .324		
20.	1 51 0 .725	3 59 .525		
21.	1 30 26 .776	4 1 .276		
23.	0 49 45 .564	3 59 .564		
24.	0 29 41 .305	3 58 .004		
25.	0 9 56 .739	4 2 .339	13° 4′ 2″.207	
	⊙ North.			13° 4′ 3″.328
26.	0 9 39 .001	4 3 .389		
27.	0 29 2 .604	3 .496		
28.	0 48 11 .508	5 .692		
30.	1 25 53 .806	4 .389		
May 3.	2 20 39 .055	2 .343		
5.	2 55 54 .866	0 .134		
8.	3 46 40 .172	5 .228		
9.	4 3 5 .912	5 .588		
11.	4 35 0 .418	8 .652		
12.	4 50 35 .340	3 .560		
13.	5 5 48 .551	6 .449	13 4 [illegible] .449	
			Diff. 2 .242	

which quantity 0″.131 is entered on the IX. column of Table II. and so of the rest.

6. I WAS at first doubtful respecting the best mode of obtaining a very accurate mean latitude for the Observatory, and hesitated between making a selection of a certain set of stars whose declination was determined at *Greenwich* after the same method, and with the same instruments; or taking the whole mass of my observations without adverting to the catalogues either *English*, *French*, or *German*, from which I had taken the declinations.

7. HAD the whole of the stars given in Table III. been computed when I began writing this paper, I might have been induced to think the separate catalogue in Table II. unnecessary, since the two means only differ by 0″.361. However, I was, at the time, determined by an opinion that the results of a few very accurate operations were always preferable to the mean of a great number of indifferent ones, and chose therefore twelve principal stars (six on each side of the zenith) the declinations of which are given in Dr. MASKELYNE'S catalogue for January 1802. With these I constructed Table II. to which I particularly wish to call the attention of the reader, as every thing that I shall say hereafter is grounded on the mean latitude which is derived from it.

8. IN this catalogue, the maximum of deviation in the respective latitudes is only 4″.551, and their gradual decrease as the stars become more southerly indicates that this difference is not solely to be attributed to inaccuracy in the observation; for it is to be observed that the regularity of this decrement (which is scarcely interrupted) cannot altogether be ascribed to

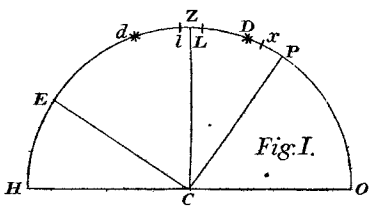

Fig. I.

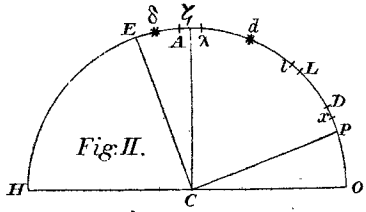

Fig. II.

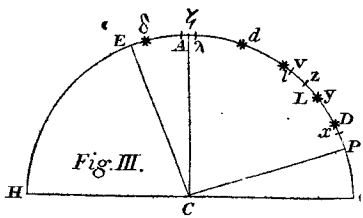

Fig. III.

chance; and it was this consideration which led me to examine whether I could not discover some law by which it was governed.

9. For this purpose I gathered all the observations which I could collect, and from as many different places in the *Peninsula* as I could, provided they were obtained in sufficient numbers at each place. These being arranged in the order of the declinations, and the mean results of northern and southern zenith distances being taken separately, I noticed invariably (though in unequal degrees) a small *excess* in the northern, and *defect* in the southern sets.

10. An abstract of these deviations is given in Table IV. and the reader will do well to refer to it in order to judge of the consistency of the preceding remark, and of the solidity of what I have further to say on the subject.

11. This exposition being sufficient to shew the tendency of observations taken north of the zenith to give *too great* a latitude, and the contrary of the southern ones, I shall now endeavour to account for this circumstance as follows.

12. Let *Z* (*Plate* VI. *Fig.* 1) be the true zenith of any place. *E D*, and *E d*, the declinations of any two stars, one north, the other south, and nearly at equal distances from the said zenith. By the present experiments, if we use the declination of *D*, the latitude will fall somewhere in *L*: but if we use the declination of *d*, then it will fall on the opposite side, somewhere in *l*. Therefore the sum of the zenith distances *D L* + *l d*,

will fall short of the differences of declinations $E\,D$, and $E\,d$ by the small are $L\,l$.

13. Let now the zenith be altered into ζ (*Fig* 2) so that d be now north of it, and let δ be the place of a third star, south of the zenith ζ. Then if we use the declination of d (which before gave us too low a latitude) it will now give it in λ; and if we use that of δ it will fall in Λ south of the true zenith: so that instead of having $E\,D - E\,\delta$ = sum of the four zenith distances, we have it (*Fig.* 2) $= D\,L + L\,l + l\,d + d\,\lambda + \lambda\,\Lambda + \Lambda\,\delta$. That is, the four observed distances + the small arcs $L\,l + \lambda\,\Lambda$. Therefore, if we suppose the declination $E\,D$ to have been well determined, that of d is too low by the arc $L\,l$, and that of δ, by $L\,l + \lambda\,\Lambda$.

14. For example; let the true place of *Aldebaran* be at x, and its apparent place (affected by the error in the declination) be at D, *Regulus* at d and α *Orionis* at δ; then at the observations at *Paudree* and *Trivandaporam* we have

$D\,L$	2°	46′	33″	.682	N.
$l\,d$	0	24	43	.040	S.
$d\,\lambda$	1	10	9	.920	N.
$\lambda\,\Lambda$	4	23	4	.810	S.
Sum,	8	44	31	.452	

of the respective zeniths.

Now the mean declination of *Aldebaran* being

Equal . . .	16°	6′	23″	.73
And α *Orionis* =	7	21	36	.61
We have $E\,D - E\,A$	8	44	47	.12
	8	44	31	.45
Diff. $L\,l + \lambda\,\Lambda$ =			15	.55

and in order to have separately the values of these quantities, we have at *Paudree*

Latitude *E L* by *Aldebaran*	13°	19′	49″ .018
E l by *Regulus*		41	.340
Difference *L l*		7	.678

At *Trivandaporam*,

Latitude *E* λ by *Regulus* .	11°	44′	49″ .329
E Λ by α *Orionis*		41	.67
Difference λ Λ		7	.879

Hence $L l + \lambda \Lambda = 7''.678 + 7.879 = 15.557$ as before.

15. It is therefore evident that, taking the declination of *Aldebaran* to be corrected, and the observation good, then the declination of α *Orionis* should be increased by 15″.557. Again, if we revert to what I have said higher up (Para. 7 *) it may be inferred, that these errors proceed from assigning originally too great a difference of polar distance between the extreme stars from which the mean latitude is deduced (as for example between *Arcturus*, and *Procyon:*) hence the mean latitude, which is derived from both, will fall somewhat *too low*; both on account of the excess of this arc, and also of the error of polar distance of *P D* —*P x*.

16. It follows from this, that the successive small arcs of declination *Dy*, *yv*, *v d*, *d δ* (*Fig.3*) will severally be *too great*, and this seems to be the case with the declinations of the twelve stars registered in Table II.

17. It is true that in the foregoing example, where I have compared the results given by *Aldebaran*, *Regulus* and α *Orionis*, I have selected an extreme case; but

* See also infra, Pa. 17.

it is likewise evident, from what appears in Table IV. that were the *mean* of any number of northern and southern stars, to be taken separately at any two places of different latitudes, and in the order here described, the deviation would tend the same way as in the above exposition; and this, it may be supposed, by a certain quantity, *thrown in from a distant zenith*, on account of refraction, which cannot be corrected here for the quantity $P\ x$, nor done away by that due to the small arcs $D\ y$ near the zeniths. Also that the latitude of ζ will fall too low by a certain quantity $(P\ D - P\ x)\ D\ x + \frac{L\ l + \lambda\ \Lambda}{n}$, where $D\ x$ is the whole error affecting the declination of D; and the divisor n, will be in some proportion of the error affecting the whole arc $D\ \delta$ (always in excess) from the extremities of which the mean latitudes of Z and ζ were deduced.

18. WITH the mean latitude given in Table II. we can therefore be no otherwise satisfied than from the following consideration, which as far as it affects our latitude seems to reduce the error $D\ x + \frac{L\ l + \lambda\ \Lambda}{n}$ to a mere nothing.

19. *Regulus*, a star of the first magnitude no doubt attentively observed from every part of *E*[illegible] to its being very near the ecliptic, and situated [illegible] minutes and 14 seconds from the zenith of [illegible] Observatory, gives a latitude differing only [illegible] mean results in Table II. by 20″.22. This, no doubt, will be admitted to be a strong indication, that its declination, such as laid down in the tables, is very accurate. *Regulus* may therefore, without inconveniency, be taken as a visible point in the heavens, from which to lay down the position of the other stars; by this

means the zenith distances applied to it will give results consistent both with the observations at *Greenwich*, and at *Madras*, and thus form a link by which the two zeniths may hereafter be connected.

20. For this reason, in computing the Xth column in Table III. I have adopted the following process:

I.

Declination of *Regulus*, . . .	12°	54′	58″	.930
Zenith distance of do. . . .	0	9	14	.504
Z. D. of *Arcturus* N. . . .	7	7	58	.690
Corrected declin. of *Arcturus*,	20	12	12	.124 N

II.

Zenith distance of *Regulus*, . .	0	9	14	.504
Zenith distance of *Procyon*, . . .	7	21	11	.302
Difference . .	7	11	57	.298
Declination of *Regulus*, . . .	12	54	58	.930
Corrected declin. of *Procyon*, .	5	43	1	.632

21. It is greatly to be regretted that there are no instruments in the *Madras* Observatory, wherewith to take accurately great zenith distances; for corresponding observations of stars near the zenith of *Greenwich* and of *Paris*, would have afforded powerful means for correcting, after the same manner, the declinations of all stars in that extensive space of the heavens which divides the two Observatories.

On the Sun's Declination.

22. It is a fact deserving of notice, that the medium of 20 observations of the sun, taken with the zenith

sector, (Table V.) gives the latitude of the Observatory only 13° 4′ 3″.328 which is less by 10″.326 than that brought out by the stars in Table II.

23. THE great difficulty of observing the sun, when in the meredian in tropical climates, owing to the great tremor of the atmosphere ar noon time, induced me not to consult it in laying down the latitude of this Observatory.

24. HOWEVER, on comparing the mean latitude in Table V. with the result of similar observations, formerly taken with the same instrument by Mr. GOLDINGHAM, (56 in number) I found that his latitude by the sun, namely, 13° 4′ 5″.66, differed only by 2″.332 from mine. There could therefore remain no doubt that the sun gave a lower latitude than the stars; and I was further confirmed in this opinion, on Major LAMBTON communicating to me his remark, that when observing the sun, in various parts of the *Peninsula*, his results were likewise in defect.

25. IN order to make a further trial of this, let us compute the exact time when the sun was precisely in the parallel of the *Madras* Observatory, and then (taking the difference of longitude between *Greenwich* and this place to be well known) determine the sun's declination for that moment, from what it is given in the nautical almanac for two preceding, and two succeeding moons.

26. FOR this, taking the four zenith distances observed nearest and on each side of the zenith, and interpolating in the usual way *, we have

* The formula of which is $y = a + P \times Q \times \frac{x-1}{2} + R \times \frac{x-1}{2} \times \frac{x-1}{3}$ &c. where x is to be found by resolving the equation.

April 24, 0 29′ 41″ S. = 1781 + = a
25, 0 9 56 S. = 596 + = b
26, 0 9 39 N. = 579 — = c
27, 0 29 3 N. = 1743 — = d

Hence:

a	b	c	d
1781;	596;	— 579;	— 1741
— 1185;	— 1175;	— 1164	
+ 10;	+ 11		
+ 1			

Therefore $a = 11781$; $P = -1158$; $Q = 10$; $\frac{2P}{2} = Z$ $= -237$. Hence $X = -\frac{Z-1}{2} \pm \sqrt{\left(\frac{Z-1}{2}\right)^2 - \frac{2a}{2}}$ $= 1.50617$ or 1 day 12^h 8′ 52″.84. Therefore the sun was exactly in the parallel of the Observatory on the 25th of April at 12^h 8′ 52″84 P. M. *Madras* time, and taking the difference of longitude to be 80° 18′ 30″ E. which gives in time 5^h 21^m 14^s, then the sun was in the said parallel on the 25th of April at 6^h 47^m 38″. *Greenwich* time.

27. Now by interpolating again for the sun's declination at that instant, we have by the ephemerides

April 24, 12° 38 44 = 45524 = a
25, 12 58 3 = 46710 = b
26, 13 18 4 = 47884 = c
27, 13 37 25 = 49045 = d

Hence:

a	b	c	d
45524;	46710;	47884;	49045
1186;	1174;	1161	
— 12;	— 13;		
— 1;			

Therefore $a = 45524$; $P = 1186$; $Q = -12$, and $x = \frac{61.587}{48}$; and $y = a + Px + Qx.\frac{x-1}{2} = 13^\circ\ 4'\ 3''.159$, which differs only from the mean latitude by the sun (Table V.) by $0''.169$.

28. It is, I own, no easy matter to give a reason for so great a deviation. The difference between this position of the sun when in the parallel of the Observatory, and the latitude of that place as given by the stars, being $10''.326$, no error in the difference of longitude assumed between the *Greenwich* and *Madras* Observatories can account for it. For if we take $y = 13^\circ\ 4'\ 13''.654$ or $47053'',654$ (Table II.) then resolving the equation we have, $x = -\frac{z-1}{2} + \sqrt{\left(\frac{z-1}{2}\right)^2 + \frac{2y-a}{2}} = 1.^{\text{day}}\ 28912$ or 1 day $6^h\ 56^m\ 19^s.9$, which gives a difference of 8 minutes and 43 seconds of time for moving through $10''.326$ of a degree in declination. So that if we suppose the sun to be in the parallel given by the stars, the interval of time allowed for the difference of longitude between *Madras* and *Greenwich* must be diminished by that quantity, which is far beyond any uncertainty that may still subsist on that head.

29. AGAIN; as to the time of apparent noon at *Madras*, the sun's transit was always observed with the fixed transit instrument, whilst I was observing it with the zenith sector; and these contemporary observations agreed always to a second of time. There can therefore be but little irregularity to apprehend from this element, and we are compelled, though under equal objections and difficulties, to ascribe the error to the declination either as assigned to the sun in the ephemerides, or to the stars in the catalogue for 1802; and and I believe the former are the most likely to create suspicion.

30. WHERE great talents are combined with the most perfect instruments and assiduous practice, the cause can only be ascribed to that important correction on which we are still so very uncertain: and on this I shall venture an opinion, not altogether unsupported by experiments *; which is, that the declination of the sun being deduced from observations taken *at noon*, and that of the stars at *night time*, the effects of refraction at these different periods may possibly vary materially, and what is allowed for zenith distances of the stars, be too much for zenith distances of the sun; a surmise which explains at once why the sun, in the present instance, gives a lower latitude than the stars. This strongly suggests the expediency of further experiments for ascertaining a point, which, if established, would be highly conductive to important discoveries, in an interesting but imperfectly known branch of natural philosophy.

JOHN WARREN.

OBSERVATORY, *near* Fort St. George, 1ft *of March*, 1808.

* See Asiatic Researches Volume IX. Article 1st, Page 13, the experiments on terrestrial refraction, where the refraction at night was something more than double what it was in the day-time, owing (it is supposed) to the increased moisture of the atmosphere.

IX.

TRANSLATIONS *of two* LETTERS *of* NADIR SHAH, *with* INTRODUCTORY OBSERVATIONS *in a* LETTER *to the* PRESIDENT.

BY BRIGADIER GENERAL JOHN MALCOLM.

TO HENRY COLEBROOK, ESQ.
President of the Asiatic Society.

MY DEAR SIR,

IN the course of researches into the history of *Persia*, my attention was particularly drawn to a collection of letters, and original state papers, of NADIR SHAH, published after his decease by his favourite secretary MÍRZA MEHEDÍ. This collection is held in the highest estimation in *Persia*, not only from the light it throws upon the history of that nation, but from the stile in which it is written, and which is considered to be the best model for those who desire to attain excellence in this branch of writing.

I HAVE the pleasure to transmit, for the consideration of the Asiatic Society, translations of two of these letters which appear to be strongly illustrative of the character of NADIR SHAH, and the history of the period at which they were written, and which may perhaps be deemed on that account not unworthy of a place in the Society's Researches.

THE first is addressed to MUHAMMUD ALI KHAN, *Beglerbeg** of *Fars*, and must from its tenor have been

* Governor of *Persia* proper.

written early in the year 1731, a few months previous to the dethronement of SHAH TAMASP, which took place in the month of August of that year. NADIR SHAH published, at the period at which he wrote this letter, a proclamation or manifesto addressed to the inhabitants of *Persia*, in which, after stating his own successes against the *Afghans* and the other enemies of his country, and the evils which appeared likely to arise from the shameful peace which had been concluded with the *Turks*, he announces his intention of marching after the feast of *Nau Roz* (which occurred that year on the 22d of *Ramzon* or 10th of March) and of not only obliging the *Turks* to consent to more just terms, but of depriving of dignity and power, and considering as infidels, all those who should oppose his intentions. This manifesto, as well as his letter to the *Beglerbeg* of *Fars*, sufficiently prove, that his designs were at that moment more directed against his own sovereign than that of *Constantinople*.

THERE is no epoch in the life of NADIR SHAH at which he acted with more consummate art and policy, than upon this occasion. The crown of *Persia* was completely within his grasp. But he appears to have considered it as indispensable to have his right universally acknowledged by his countrymen before he seized it. He had within a period of thirteen years risen from obscurity to unrivalled pre-eminence in the service of his weak monarch; and, by his wonderful valour and conduct, had not only rescued his country from the *Afghans*, the *Turks* and the *Russians*, who taking advantage of the decline of the *Sofaviyah* dynasty and consequent dissentions of the nobles of the empire, had made themselves masters of its richest cities and finest pro-

vinces; but he had received the military spirit of the *Persians*, and roused a nation sunk in sloth and luxury, to great and successful exertion. But neither this success, the imbecility of SHAH TAMASP, nor a reliance upon his own fame and strength, could induce him to take the last step of usurpation, until he had by his arts excited a complete contempt in the minds of his countrymen for their reigning sovereign, and a pride in his glory, that was likely to make his elevation seem more the accomplishment of their wishes than of their ambition. The great ability with which he laboured to effect this object, is admirably shown in his letter to MUHAMMED ALI KHAN. He commences by stating his victories over the *Afghans*, whom he had not only completely expelled from the empire, but pursued into their own territories. He next exposes the impolitic and humiliating conditions of the treaty which the king had concluded with the *Turkish* government; and, on the ground of its bringing disgrace on *Persia*, asserts his right and intention, as the successful champion of the independence of his country, to abrogate the ignominious engagement; and while he flatters the national spirit of the *Persians* by anticipating success against their ancient rivals the *Turks*, he endeavours to enflame all their bigotry by giving the colour of religion to the cause which he has undertaken; and calls upon them, with the well feigned zeal of an enthusiast, to fight for the preservation and existence of the holy sect of *Shiah*, a schism which, as appears from his whole life, he always considered to be a heresy, and which it was the first and last object of his reign to eradicate and destroy: and, to make the effect of this letter complete, he concludes it with the usual declaration of all *Muhammedan* leaders who have made religion the pretext of

war, that he should consider and punish as infidels all those that refused their concurrence and aid in the sacred cause to which he professed himself devoted.

THE second letter is from *Delhi*, and must have been written immediately after the arrival of NADIR SHAH in that city, in the month of February 1738. It commences with a clear statement of the causes of his invasion of *Hindustan*; which is followed by a concise relation of his military operations, and a particular account of the celebrated battle of *Karnál*, in which he defeated the emperor of *Indiá*. The account of occurrences before the action, the action itself, the subsequent visit which NADIR received from MUHAMMED SHAH, and his resolution to replace that monarch upon the throne of his ancestors, are stated with equal perspicuity and force, and the whole of this letter is written in a less inflated stile than any oriental composition of a similar nature which has fallen under my observation. It records events of almost unparalleled magnitude, and the expression is (as far as I can judge) never more warm than what the subject justifies, and indeed requires.

THESE letters are perhaps calculated to give the reader a more favourable impression of the character of NADIR SHAH, than any thing before published relating to that great and successful conqueror; who is chiefly known in *Europe* by the report of his tyranny and cruelties, and above all by the massacre of *Delhi*, which reached *European* narrators through the exaggerated statements of the surviving inhabitants of that unfortunate city. It is far from my intention to trouble you with what the *Persian* advocates of NADIR SHAH state in vindication of his conduct upon that memorable occasion; nor do I mean to enter in this place into

any inquiry regarding the character and actions of this extraordinary man; but you will, I am assured, forgive me, if I offer some observations on the manner in which the history of NADIR SHAH and of several other *Asiatic* princes of eminence have been given by *European* writers.

IN describing eastern despots, there has often appeared to me a stronger desire to satisfy the public of the author's attachment to freedom and his abhorrence to tyranny, and despotic power, under every shape, than to give a clear and just view of those characters whose history was the immediate object of his labours. This usage may no doubt, in some points of view, appear laudable. It may have a tendency to impress those who peruse the work with a still greater love of the first of all human blessings, rational liberty. But others, who look to a volume of *Asiatic* history with no other desire but that of obtaining historical truth, and a correct knowledge of the social and political state of the nation that is described, will be disposed to regret that there was any prejudice on the mind of an author or translator, that gave him a bias unfavourable to the gratification of their hopes. They will wish, that he had looked upon the political world with more toleration; and though they may not censure his warm admiration of the government of his own country, they will lament the existence of a feeling which was adverse to an impartial consideration of events illustrative of the general history of the human mind, and which has led him to stamp with general and unqualified reprobation rulers, who, however low their pretentions may be rated, if tried by the standard of countries towards whom that over which they reigned had no one point of affinity, must have stood high in the scale, if measured by that more applicable principle,

which takes as its foundation, the actual state of the community in which such characters were born, the means which they possessed, and the actions which they achieved; and, on this fair and just ground, pronounces with truth and discernment, on the right they had, from their qualities and achievements, to that pre-eminence which they attained.

If such an author were to write the history of Nadir Shah, he would probably see something more than a mere usurper and tyrant in the man, who, born in a low rank of life, at a period when his country was overrun by foreign invaders, raised himself by the force of his own genius and courage to the highest military rank; attacked, defeated, and expelled every enemy from *Persia*; and afterwards, with the universal consent of his countrymen, seized the sceptre which his valor had saved, and which a weaker hand could not have wielded. Such an historian, after dwelling with pleasure if not enthusiasm, on the early events of his life, would accompany Nadir with satisfaction in his war upon those barbarous *Afghan* tribes, who for a series of years had committed the most horrid ravages in *Persia*; and though it would be impossible to commend the motives that led that monarch to attack the Emperor of *India*, the extraordinary valour and conduct which he displays in that enterprise, the exercise he gave by it to that military spirit which he had with such difficulty rekindled among his countrymen, and the magnanimity with which he restored the crown (which he had conquered) to the weak representative of the illustrious house of *Timur*, might, without offence to truth, be stated by such a writer in mitigation of that insatiable desire of glory which prompted the enterprise, and of those excesses by which it was attended.

THE actions of NADIR SHAH, until the period of his return from *India*, are a theme of constant praise among his conntrymen. Of the remainder of his life they say, that, though it was not unmarked by great deeds, it was too evident that he had become intoxicated with success, and no longer acted under the guidance of reason; and all *Persian* authorities agree, that, after he had in a paroxysm of rage, or rather madness, put out the eyes of his eldest son REZA KULI MÍRZA, he became altogether insane. But neither this act of attrocity, nor the other cruelties which NADIR committed towards the close of his reign, have eradicated from the minds of his countrymen the sentiments of veneration which they entertain for his memory, as the deliverer of his country from its numerous, cruel, and insolent enemies.

I MUST trust to your indulgence to excuse the length of this letter. If the accompanying translations are deemed worthy of being inserted in the transactions of the Asiatic Society, I hope to be able to forward hereafter others of a similar kind.

I am, My Dear Sir,

wrih sincere respect and esteem

Yours faithfully,

JOHN MALCOLM.

31st October, 1808.

LETTER I.

(Written before NADIR SHAH *ascended the throne,) addressed to* MUHAMMED ALÍ KHAN, *Beglerbeg of Fars; and giving an account of the conquest of Herat.*

TO the highest of the exalted in station, the Chief of the great Nobles MUHAMMED ALI KHAN, these happy tidings be conveyed.

AIDED by the bounty of an all powerful Creator, and the happy auspices of the house of HAIDER * and the twelve holy *Imams* (on whom be eternal mercy,) with my crescent formed and all subduing scimitar, which in glory resembles the recent moon, and with my powerful and victorious army, and soldiers of propitious destiny, *who are those sent from heaven* †, I have, under the influence of good fortune, surpassed all others in the capture of fortresses and cities.

AT this happy and auspicious period, the host of *Afghans* of the tribe of ABDALLI, who fled from the edge of the conquering swords of my dragon-like warriors, retired, *as a spider within its web* ‡, into the fort of *Herat*. Their hearts were distracted with fear, and the pillars of patience and fortitude, that had supported their resolution, were cast down. Reduced to

* ALI. Here the tribe of *Shiahs* are meant, who are supposed to be under ALI's protection, and in fact part of his family.

† Sentences marked in italics, are passages from the *Koran*, of which I have concisely rendered the meaning.

‡ From the *Koran*. The passage literally signifies "like unto the spider that maketh himself a house." But the weakest of houses surely is the spider's.

distress by the complicated evils of famine and of the sword, they implored mercy; and "as clemency is enjoined to the powerful," I permitted them to evacuate the fort; and have sent (with a view to disperse them) sixty thousand of this tribe with their families, who were reduced to great misery, to the city of *Khar Shahyar* in the province of *Khorasan*. By the favour and blessing of that omnipotent being, by whom I have been protected, the fort of *Herat* is in my possession; and the whole of the tribe of *Afghans*, as also of the *Ghelyahs* * of *Candahar*, who were in the bounds of alliance with them, have submitted; and have placed upon their necks the collar of obedience.

In the midst of these actions, by which the whole country from *Herat* to *Candahar* has been completely subdued, and the disturbers of tranquillity on the borders of *Khorasan* exemplarily punished, I learn by a letter from Muhammed Reza Khan, who was sent ambassador to the court of *Rúm* †, that he has concluded a treaty with the king, by which it is agreed that the *Turkish* empire shall possess the territory on the other bank of the river *Aras*; and the *Persian*, all upon this: but no arrangement appears to have been made for the liberation of the prisoners of the sect of Alí who are confined in the *Turkish* dominions.

It is an incontestible truth, that the existence of humble persons, like us, who, from the favour of a divine providence, have obtained rank and pre-eminence over others, is for no other purpose than that we should be the friends of the sect of *Shiahí*, that we

* A particular tribe of *Afghans*.
† *Constantinople*.

should relieve the distress and dispel the grief of the poor and afflicted; ("for to protect the ruled is the duty of the ruler.") That we should combat the enemies of the weak, and eradicate the distemper of sedition from the body of the state: not deaf (deaf to the voice of the helpless and unmindful of those that are prisoners) we should break such sacred engagements, to conciliate the approbation and yield to the power of a proud enemy.

By the great and powerful God, this day is big with ruin to their enemies and with joy to the sect of *Shiahs*, the discomfiture of the evil-minded is the glory and exaltation of the followers of Ali. *When the avenger is at hand the wicked tremble and are appalled. Their eyes roll wildly like one in the agonies of death. Let the danger pass over, and it is forgotten. They revile and mock with their tongues.*

This is a just description of the *Turkish* tribe. Why should we listen to more prevarications? Or why confine ourselves to the bank of the *Aras* *; when it is manifest, that the peace, which has been concluded, is contrary to the will of God and irreconcileable to the wisdom or dignity of imperial greatness.

I have stated to the minister of the exalted prince, that such a peace cannot be permanent, and that I conclude the mission of an ambassador to have been an act of compulsion, as I cannot believe that the prince would, under other circumstances, have consented to such a degradation of his dignity. But at all events, as offerings are continually made in the palaces of the lords of the faithful, and the holy men with broken

* *Araxes.*

hearts are praying to their divine creator for the release of the *Musulman* prisoners; it was my determination, after receiving leave from the holy prince of regions * ALI IBN MAUSA REZA (on whom be eternal blessings) to march on the second day after the feast of *Feter* † towards the disputed quarter, aided by the divine power, and accompanied by an army raging like the troubled ocean.

VERSES.

I shall overflow my banks, and fly like an impatient lover to his mistress;
Like a torrent, will I rush, with my breast ever on the earth.
HAFIZ! if thy footsteps desire to gain, by the true path, the holy house,
Carry along with thee the virtue of the exalted of *Nejef*.

I HAVE represented also, that I have sent the high in dignity, MAHSUM ALI BEG GERAILI, ambassador to the court of *Rûm*, and that he is attended by a respectable escort; and that he is fully acquainted with my wishes and sentiments.

You will no doubt be rejoiced to hear, that, as it was to be hoped from the goodness of God, this peace with the *Turks* is not likely to endure; and you may rest in expectation of my approach. For, by the blessing of the most high, I will advance immediately, with an army elated with success, skilled in sieges, numerous as emmets, valiant as lions; and combining with the vigor of youth the prudence of age. I will attend on the exalted prince, and then proceed towards the *Turkish* frontier.

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* One of the twelve *Imams*, who died at *Meshed* in *Khorasan*, where he is buried

† This feast happens at the conclusion of the month of *Ramzan*.

VERSE

Let the cup-bearer tell our enemy, the worshipper of fire,
To cover his head with dust;
For the water, that had departed, is returned into its channel.

SUCH of the tribe of *Shiahs*, as are backward on this great occasion, and are reconciled to this shameful peace, should be expelled from the faithful seat; and for ever counted among its enemies. To slaughter them will be meritorious; to permit their existence, impious.

" I have heard, that, during the reign of MUTASIM,
" A woman of *Ajim* was taken by the foe:
" Her eyes became channels for torrents of blood.
" She thus complained of her wretched state.
" Oh MUTASIM! why art thou supine? I call for justice!
" Thy subject is a prisoner in the hands of thine enemy,
" Thou art the flame in the lamp of the country.
" On thee depends the shame and glory of the nation.
" Thou art the protector of the poor and wretched:
" All their children are the children of their sovereign!
" Her masters, astonished at these exclamations,
" In rage struck her on the face;
" And said, "now let your monarch MUTASIM,
" With all the renowned heroes of *Persia*,
" Collect an innumerable army,
" And come, if they chose, to thy rescue."
" This speech soon reached the great MUTASIM,
" Who immediately published throughout *Persia*,
" That all, who pretended to the name of men,
" Should instantly assemble in arms.
" When the monarch had completed his mighty preparations.
" He soon heaped destruction on the heads of his enemies *.
" To release one prisoner from the hand of the foe,

* This story is related by historians, of MUTA'SIM, the son of HA'RUN'AL RA'SHID, and eighth *Khalif* of the house of ABAS. *D'Herbelot Bibl. Or.* 639.

" If an incomparable army were assembled,
" At this moment, when numbers of the *Shiahs* of *Persia*
" Are prisoners in the hand of cruel men,
" And, with their lamentable cries uttered morn and eve,
" Have rendered dark and gloomy the azure sky;
" It is acknowledged by the tribe of *Shiahs*,
" That the king † of *Khorasan*, the *Imam* of the age,
" Is not considered by the men of *Persia*
" As less honourable, nor of lesser fame, than MUTASIM!
" Then, by the mercy and greatness of the creator,
" Victory is still declared to these soldiers.
" Under the auspices of the most merciful of the world,
" I have taken ample vengeance on the *Afghans*.
" Aided by the fortune of the lord of *Khorasan*,
" I have been revenged on the whole tribe of the *Afghans*.
" There remains not in this quarter, at this period,
" Aught of that tribe but their name.
" In this war great actions have been fought,
" The *Kezel-bashes* * became each a sharp pointed thorn.
" From the slaughter that has been made, and the blood that has been shed,
" Our high polished scimitars have received a purple stain.
" I have taken from the worthless foe,
" With my sword, the region from *Herat* to *Candahar*!
" By the sacred temple of the lord † of *Nejef*,
" We will turn with vehemence to that quarter:
" We will perform a pilgrimage to that threshold
" And we will afford protection to our prisoners:
" We will take ample vengeance of the *Turks*.
" We will punish ‡ all our foes.
" And in this war, whoever continues inactive,
" Or from baseness remains in pretended ignorance,
" Both his property and his blood are lawful prize.
" He is to be considered out of the pale of the true faith."

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† ALI MAUSA REZA, the seventh *Imam*, buried at *Meshed*.

* *Persians*; literally *Redheads*, a name given to them, from the circumstance of SHAH ISMAIL having directed all true followers of the sect of *Shiah* to wear red caps.

† ALI, the son in law of the prophet, who is buried at *Nejef*.

‡ Literally, *furbish the garments*.

MOST Noble Lord, if the state of the province of *Fars* will permit, lose not a moment in repairing to the court of the most exalted prince at *Ispahan*; and represent to him that, as the peace which has been concluded will benefit no person whosoever, and can in no light be viewed as proper or reputable, it neither meets the approbation of the nobles nor the commonalty of the empire.

BUT, if you should be prevented from moving to the capital, owing to the dispute with the *Arabs* not being adjusted, let me be instantly informed. If you are able to quell these troubles, it is well. But, if you require aid, make me acquainted; and a detachment of my victorious army shall march to your support.

KEEP me regularly informed of the news of your quarter.

LETTER II.

From NADIR SHAH, *to his son* REZA KULI MÍRZA, *giving an account of the conquest of Delhi.*

TO the exalted and glorious son of our wishes the valiant REZA KULI MI'RZA, who is our vicegerent in *Irán*, the seat of our empire; our most beloved, the pre-eminent in royal rank, allied to us in dignity:—be these glorious commands known.

AGREEABLY to our former communications, after the defeat of *Afghan* prince, ASHREF ALI' MERDAN KHAN was appointed our ambassador to the court of *Hindustan* for the purpose of representing to that court,

that as the turbulent *Afghans* of *Candahar* and its neighbouring provinces were to be considered equal enemies to both states, it would be advisable to appoint an army from *Hindustan*, to occupy the passes and prevent the retreat of the marauders. The emperor MUHAMMED SHAH gave a ready assent, and concluded a treaty to the proposed effect. After the return of our ambassador, we sent MUHAMMED ALI' KHAN to the court of the *Indian* emperor to repeat our instances on this subject, and MUHAMMED SHAH confirmed his former engagement.

AFTER our glorious and victorious standards returned to *Candahar*, we understood from our conquering generals employed with a part of our force in the reduction of the *Afghans* of *Kallat* and *Ghizni*, that MUHAMMED SHAH had in no respect fulfilled his engagements; and that no appearance of an *Indian* army had been seen in that quarter. This intelligence induced us to send with the utmost expedition, MUHAMMED KHAN TURKOMAN to the court of *Delhi* to remind the Emperor of his promises; but that sovereign and his ministers, in dereliction of their former engagements, treated the subject with neglect omitted answering our letters, and even put restraint on the person of our ambassador.

IN this situation we were impelled to march against the *Afghans* of *Ghizni* and *Cabul*, and after punishing the refractory mountaineers in that quarter, as we considered the neglect and contempt with which MUHAMMED SHAH had behaved, and his conduct to our ambassador irreconcileable with friendship, we marched towards *Shahjehánábád*.

OF our success in reducing the provinces of *Peshavir* and taking possession of *Lahore*, the former seat of empire, our beloved son has already been informed. We marched from that city the last day of *Shavàl*, and on Friday the 10th of *Zelkád* reached *Ambala*, forty farfakhs from *Sháhjehánábád*. We here learnt, that MUH'AMMED SHAH had collected from *Hindustán* and the *Dec'hin* a numerous force, and accompanied by all his nobles, by an army of three hundred thousand men, three hundred pieces of cannon, three or four hundred elephants, and other equipments in proportion, had marched from *Delhi* and arrived at *Pánipet*, a village twenty farsakhs from *Ambala*. We immediately directed the superfluous and heavy baggage of our conquering army to be left at *Ambala*, and advanced to meet the enemy. MUH'AMMED SHAH also left *Pánipet* and marched to *Carnál*, which is twenty-five farsakhs from *Delhi*.

IN the course of our march we detached a force of five or six thousand men in advance, who had orders to observe the appearance, numbers and order of MUHAMMED SHAH'S army. This body, when about two farsakhs from *Carnál*, fell in with the advance of the *Hindustání* army, which amounted to twelve thousand men: these they attacked and totally routed; presenting us with their general and many others, whom they made prisoners.

THIS signal defeat put a stop to MUHAMMED SHAH'S further advance. He halted at *Carnál* and surrounded his army with a trench: he also constructed ramparts and batteries on which he placed his cannon.

WE had sent a detachment to march to the east

of MUH'AMMED SHAH's camp and post themselve on the road that led to *Delhi*: this party received accounts on the night of Tuesday the 15th, that SAADET KHAN, known by his title of *Burhán ul Mulk*, and one of the chief nobles of the empire had reached *Malabat* accompanied by an army of 30,000 men, a train of artillery, and a number of elephants, and intended forcing a junction with MUH'AMMED SHAH.

WITH a view of intercepting this force, we marched our army, two hours before day break, to the east of *Carnál*, and occupied the road between that village and *Panipet*. This movement, we hoped, would force MUH'AMMED SHAH from his entrenchments. About an hour and a half after day light we had passed *Carnál*, and gained the east side of the *Hindustáni* camp, when the advance guard made prisoners some stragglers of SAADET KHAN's party, from whose information we learnt, that that general had succeeded in his design of forming a junction with the emperor; in whose camp he had arrived at ten o'clock the preceding night.

ON this intelligence we were pleased to order our royal tents to be pitched on the ground which we then occupied, opposite to the camp of MUHAMMED SHAH, from whom we were distant about one farsakh.

As the junction of SAADET KHAN had been the cause of MUHAMMED SHAH's delays, he conceived on that event his appointments to be complete; and, leaving two thirds of his cannon for the protection of his camp, he advanced with a great part of his army, a third of his artillery, and a number of his elephants, at twelve o'clock the same day, half a farsakh in the

direction of our royal army; and drew up his troops in order of battle. Placing himself in the centre of the advanced lines, he stationed the remainder of his troops in the rear as a support. Their numbers were incredible. They occupied, as close as they could be drawn up in depth, from the front line to the entrenched camp, a distance of half a farsakh; and their front was of equal extent. The ground was every where dark with their numbers, and to judge from appearance, we should suppose they were ten or twelve times more numerous than the army of the *Abdal Gardoghly*.

We, whose only wishes were for such a day, after appointing guards for our camp and invoking the support of a bouutiful creator, mounted and advanced to give battle.

For two complete hours the battle raged with violence, and a heavy fire from cannon and musquetry was kept up. After that, by the aid of the Almighty, our lion-hunting heroes broke the enemy's line, and chaced them from the field of action, dispersing them in every direction.

Saadet Khan mounted on his state elephant, his Nisha Muh'ammed Khan and other relations, fell prisoners into our hands. Samsa'm Alí Khan Dúran Amir ul Omra Baha'dur, the first minister of the empire, was wounded. One of his sons, with his brother Muzefer Khan, was slain; and another of his sons, Mír Aa'sh'ue, was taken prisoner. He himself died the following day of his wounds.

Was'ili Khan, the commander of the emperor's body guard, Shad'ab Khan. Amir Kuli Khan, Ali Muhammee Khan, Mir Husen Khan,

KHA'JA ASHREF KHAN, ALI-YAR KHAN, A'AKIL BEG KHAN, SHAHD'AD KHAN *Afghan*, AHMED ALI KHAN, RAZIN RAI KHAN, commander of the artillery, as also SHIR KHAL'U, with about three hundred other nobles and leaders, of whom fifteen were commanders of seven thousand, of four and of three thousand, were slain.

MUH'AMMED SHAH, with NIZAM UL MULK, ruler of the seven provinces of the *Dee'hin*, and a chief noble of the empire, KAMER UL DIN KHAN, chief vizier, and some other nobles of less note, protected by a covering party which had been left, made good their retreat within the entrenchments, and escaped the shock of our victorious swords

THIS action lasted two hours; and for two hours and a half more were our conquering soldiers engaged in pursuit. When one hour of the day remained, the field was entirely cleared of the enemy; and as the entrenchments of their camp were strong, and the fortifications formidable, we would not permit our army to assault it.

AN immense treasure, a number of grand elephants, the artillery of the emperor, and great spoils of every description, were the reward of our victory. Upwards of twenty thousand of the enemy were slain on the field of battle, and a much greater number were made prisoners.

IMMEDIATELY after this action, we surrounded the emperor's camp, and took measures to prevent all communication with the adjacent country, preparing at the same time our cannon and mortars to level with the ground the fortification which had been erected.

As the utmost confusion reigned in the imperial camp, and all discipline was abandoned, the emperor, compelled by irresistible necessity, after the lapse of one day, sent NIZAH UL-MULK, on Thursday the 17th, to our royal camp; and the day following MUH'AMMED SHAH himself, attended by his nobles, came to our heaven-like presence, in an afflicted state.

WHEN the emperor was approaching, as we are ourselves of a *Turkoman* family, and MUH'AMMED SHAH is a *Turkoman*, and the lineal descendant of the noble house of GAURGA'N'I; we sent our dear son NASIR ALI KHAN beyond the bounds of our camp to meet him. The emperor entered our tents, and delivered over to him the signet of our empire. He remained that day a guest in our royal tent.

CONSIDERING our affinity as *Turkomans*, and also reflecting on the favors and honors that befitted the dignity and majesty of a king of kings; we bestowed such upon the emperor, and ordered his royal pavilions, his family and his nobles, to be preserved; and we have established him in a manner equal to his great dignity.

AT this time, the Emperor with his family and all the lords of *Hindustan* who marched from camp, are arrived at *Delhi*: and on Thursday the 29th of *Zilkâd*, we moved our glorious standard towards that capital.

IT is our royal intention, from the consideration of the high birth of MUH'AMMED SHAH, of his descent from the house of GAURGA'N'I, and of his affinity to us a *Turkoman*, to fix him on the throne of empire, and to place the crown of royalty upon his head.

PRAISE be to God, glory to the most high, who has granted us the power to perform such action! For this great grace which we have received from the Almighty, we must ever remain grateful.

GOD has made the seven great seas like unto the vapour of the desart, beneath our glorious and conquering footsteps and those of our faithful and victorious heroes. He has made, in our victorious mind, the thrones of kings, and the deep ocean of earthly glory more despicable than the light bubble that floats on the surface of the wave; and no doubt his extraordinary mercy, which he has now shown, will be evident to all mankind.

As we have taken possession of a great number of cannon, we send 26,000 *Moghals* of *Iran* and *Turan*, with a detachment from our own conquering army, and a body of artillery with some large elephants, whom we have directed to march to *Cabul*. No doubt our sons will inform us of the affairs of that quarter.

AFTER the arrival of your letter, we will either order the detachment which we have sent, to proceed to *Balkh* or to go to *Herat*.

WE have appointed the high in dignity AA'SHUR KHAN to march to *Balkh*, after the *Nau róz*, (22d March) which he no doubt will do.

CONSIDER our glorious victory as derived from the bounty of the creator of fortune beyond all calculation. Make copies of this our royal mandate and disperse them over our empire, that the well wishers of our throne may be happy and rejoice, and our secret enemies be dejected and confounded. Be you con-

stantly employed in adorning and arranging your government; placing your hopes in the favor of the most high, so that by the blessing of God, all those, whether near or distant, that are not reconciled to our glorious state, and are brooding mischief, may be caught in their own snares; and all real friends, who are under our dominion, may attain their wishes, and prosper under the auspices of our munificent government.

Dated 29th *Zilkâd*, 1115 Hejira,
Shahiehanâbad or *Dehli*.

END OF THE TENTH VOLUME.

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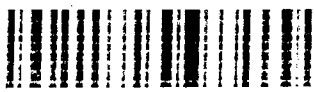
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